



Dominion Medical Monthly

And Ontario Medical Journal

Title Page and Table of Contents

Vol. XLI.

TORONTO, JULY, 1913.

No. 1

Original Articles

RADIUM IN DERMATOLOGY

By DR. W. H. B. AIKINS.

Consulting Physician, Toronto General Hospital, Toronto Hospital for Incurables,
King Edward Sanitarium, etc., etc.

In collaboration with

F. C. HARRISON, B.A., M.B.

Assistant in Pharmacology, University of Toronto; Physician, Toronto Hospital
for Incurables.

Radiation in some form or other has formed a branch of therapeutics for some considerable time, X-ray treatment representing the earliest variety. The radio-active rays are now chiefly used, usually proceeding from radium itself, but occasionally from synthetic radio-active products, and the recent improvements in technique, both in simplicity and adaptability, have resulted in increased facility of application, and thus greatly added to the value and scope of this form of treatment. In estimating the value of radium treatment it should always be remembered that each case should be judged on its own merits, and careful consideration given to the variety of lesion present, its site, extent, and the greater or less susceptibility of the tissues to the action of the rays.

The employment of this method of treatment in dermatology dates from 1906, when the *Laboratoire Biologique du Radium* was established in Paris with the object of developing radium treatment, from a scientific, educative and philanthropic point of view. From this date onwards Wickham and Degrais carried on extensive inves-

*Read at a meeting of Ottawa Medical Society, January 10, 1913.

142034
28/3/17.

tigations, the results of which demonstrate conclusively its value in the treatment of many diseases of the skin, and indicate the possibility of its occupying a still more prominent position in this connection in the future.

For convenience one may roughly classify the various conditions of the skin in which the use of radium is of service into:

1. What the French call "Dermatoses," a term which includes the eczemas, psoriasis, pruritus, etc.
2. Inflammatory and parasitic conditions such as acne vulgaris, ringworm, sycois, lupus vulgaris.
3. The vascular new growths—nevi and angiomas.
4. Other new growths, benign and malignant, such as warts, moles, rodent ulcer, epithelioma, sarcoma.

Analgesic Action of Radium.—Owing to the analgesic and decongestive properties of the radium its beneficial effect is very marked in pruritus ani, and considerable relief is also given in pruritus vulva and pruritus of the scrotum. The obstinate resistance of many cases of pruritus to all ordinary methods of treatment is well known, but radium has given extraordinary results, the improvement in some instances being apparently permanent. The intolerable itching ceases within one or two days after irradiation, and Wickham and Degrais report two cases in which cure has persisted twelve and fifteen months respectively, Barcat, one which has been without recurrence for three years, and two which have remained cured for one year and eight months respectively. We can also report good results from the use of radiferous pomade in pruritus ani.

The analgesic action of radium also influences the severe pain which is often associated with herpes zoster. In such cases heavily screened plaques, applied for many hours in succession, are used to influence the deep branches of the nerve, whilst slightly screened plaques, applied for shorter periods, produce the desired effect on the superficial terminations of the nerve. Many cases are reported in which great relief was experienced within a few days after this treatment.

Eczema.—It has been demonstrated that radium has an action on the sensory, motor and trophic functions of the nervous system, and it is therefore obvious that it ought to exert a beneficial influence in eczema, which is characterized by trophic and sensory disturbances. It has naturally only been employed in obstinate forms of this condition, with the result that they have often been relieved when all other measures have failed. In chronic dry eczema great success has followed the applications for short periods at a time of

plaques of a low degree of radio-activity, the intolerable itching, which is such a troublesome symptom in this disease, being usually relieved within a short time after the commencement of the applications. If there is not manifest and definite improvement within three weeks it is advisable to give another course of treatment, increasing the duration of the exposures. Wickham and Degrais, in their latest publication, state that they have treated about two hundred cases of chronic eczema, associated with lichenification, in this manner, and that the results have almost invariably been favorable. Bayet also reports 42 cases, 41 of which were successful. The decongestive and analgesic properties of radium are of special service in relieving the symptoms in this condition. Repeated applications of an unscreened plaque for five minutes at a time, are sometimes very useful in cases of acute eczema, with a tendency to recurrence. In chronic weeping eczema irradiation cannot be performed with equal facility, but in spite of this many successful cases have been reported, in some of which the eruption has not reappeared for a year or more after the cessation of the treatment. The prognosis is most favorable in the localized forms. Toiles of a low degree of radio-activity may give as good results as the stronger apparatus, but they cannot be applied with equal facility in the irritable and weeping form of eczema as in the dry variety. In all cases of eczema in which radium treatment is employed it is advisable to combine with it the ordinary local and constitutional treatment of the condition.

Radium has also been utilized in a few cases of eczema in the form of a pomade, which is applied with the object of relieving the inflammation and pruritus.

As an example of the favorable action of radium in this condition we may cite the following case which we have had under observation:

A gentleman, age 51, had suffered for years from eczema of the exposed parts of the body, and the skin on the face and hands was quite thickened and caused him constant irritation. He had employed all manner of local and internal medications. Twenty minute exposures of a radium plaque were given over the affected area. He was seen again in three weeks. The irritation was much less, but the thickening of the skin was still present. The same exposure was repeated. About two weeks later he had an acute exacerbation, and the skin was very red, irritable and formed vesicles at several points. During this acute attack he received three minute exposures to a plaque. When the acute inflammatory process had subsided the skin gradually lost its chronic thickness and in a short

time was quite normal in appearance, and has occasioned him no discomfort since.

Psoriasis.—Psoriasis has been very successfully treated by radium, either alone or in combination with other methods of treatment, and in some cases it may succeed where the X-rays have proved ineffectual. In dealing with obstinate patches the most suitable form of apparatus is the naked plaque, applied for short periods at a time. The scales are generally loosened, and fall off in from eight to ten days, the slight residual stain rapidly disappearing. When the eruption is on the face a thin aluminum screen should be used in order to prevent pigmentation. As a rule radium therapy is indicated in the forms of psoriasis associated with pruritus. In some cases very weak doses may relieve this symptom, and anti-pruriginous treatment may therefore be beneficial even in the most extensive cases. Retrogression and finally complete disappearance of the eruption may be expected in from six to eight weeks after the commencement of the applications, but unfortunately with this, as with all known methods of treatment of psoriasis, recurrence is very likely to take place. In spite of this, however, the great relief afforded by even a temporary cessation of the intolerable pruritus and irritation render the treatment justifiable in every case of psoriasis.

Lupus Erythematosus.—Radium therapy constitutes a comparatively new departure in the treatment of this obstinate skin affection, and it frequently proves successful when other methods have failed. In this condition, as in lupus vulgaris, Wickham and Degrais recommend fairly large doses, and that in all cases the applications should include from two to three millimetres of tissue outside the apparent limit of the lesions, in order to obviate as far as possible the possibility of recurrence. A combination of irradiation with other forms of treatment usually gives the best results, although several cases are reported which were cured by radium alone. Wickham and Degrais have had good results from the injection of radium bromide in one case, but this appears to be an isolated instance.

Bareat recommends (*Precis de Radiumtherapie*, Paris, 1912, 148) that in cases with but slight infiltration the doses should not be sufficiently large to entail any ulcerative reaction, whilst in those associated with extensive infiltration much stronger doses should be employed. In his experience irradiation has resulted in improvement in all instances, and in complete success in many cases.

Granulosis Rubra Nasi.—This condition, which is characterized by diffuse congestion of the extremity of the nose, is extremely refractory to treatment, but Barcat reports excellent results in two cases from the employment of radium. In both cases after the first application of the rays, which lasted for half an hour, there was a temporary reaction, but the favorable results were very obvious in six weeks and two weeks respectively, subsequent treatment producing a complete cure.

Hypertrichosis.—Owing to the facility with which they can be applied and the slight degree of inconvenience experienced by the patient, the radium rays, when applied with suitable precautions, afford a convenient method of destroying the superfluous hair which is sometimes such a disfigurement to a woman. A light lead screen covered with paper should be used, the exposures lasting from two to three hours, with intervals of twelve to fourteen days between each exposure. By this method the hair follicles will be destroyed without the drawback of the excessive irritation, in some cases pigmentation, which may result from exposures of shorter duration to unscreened plaques.

Acne Rosacea.—This condition, which causes great disfigurement, usually affects the nose, chin and cheeks, and in dealing with it radium therapy is very often efficacious and gives permanent results, these results being evidently and pre-eminently due to the decongestive action of radium. It is not infrequent for obstinate cases of the disease, which have proved refractory to all other measures, to be cured after exposure to the radium rays for a short period. Owing to the fact that the eruption usually appears on the face, the greatest care should be taken to avoid residual disfigurement. With this object the plaque should be covered with a light aluminum screen and from five to ten sheets of black paper; the exposures should be of short duration, and the applications should not be given too frequently. It is well to employ in some cases doses of sufficient strength to produce an erythematous or erythematopityriasic reaction. In spite of the temporary accentuation of the redness, due to this reaction, the acneiform eruption rapidly retrogresses, and on the cessation of the reaction the area appears decongested and normal. It is only in rare cases that the result is not successful, and in the majority of instances the beneficial effects are fairly permanent.

Hypertrophic rosacea or rhinophyma which may be found unassociated with acne of the rest of the face, is a permanent hypertrophy, the nose is bulbous and the affected parts are irregularly mammillated and covered with blood vessels. This condition, which

hitherto was only amenable to mechanical measures, can now be treated successfully with radium.

Acne Vulgaris and Acne Keloid.—Chronic cases of acne vulgaris, particularly those associated with considerable scarring, may be treated in a similar manner with good results.

Acne keloid is usually situated on the nape of the neck, and the difficulty of permanent cure of these tumors by surgical operations is recognized by all surgeons. As a rule, recurrence takes place, the tumor frequently being more voluminous than that removed by the operation. Electrolysis and scarification are successful in a few cases, but very prolonged and painful treatment is invariably required. Radium applied by means of plaques appears to be particularly appropriate to the treatment of obstinate cases of keloid acne. This fact is attributed by Wickham and Degrais to the special receptivity of the keloid tissue and to the influence of radium on the pilo-sebaceous glands. It produces immediate destruction of the hair and glands, and thus prevents recurrence of the keloid tumor. In their latest publication they stated that they have treated some hundreds of cases in this way, with more or less marked improvement in every instance, and in the majority of cases complete disappearance of the tumor. Recent keloids sometimes disappear in from six weeks to two months. Although some of these cases are of long standing, there has not been a single recurrence, which is the more remarkable when one takes into consideration the fact that such tumors almost invariably recur when treated in any other manner. In a few cases they have combined radiation with surgical extirpation, and they report one case in which a tumor had recurred four times after operation, but after the fifth operation, which was followed by radiation, there has been no recurrence, although the case is of several years' standing. We have had also a most excellent result in a case of acne keloid on the neck of a young man who had suffered from the affection for six years.

Parasitic Diseases of the Skin.—These include sycosis of the beard and ringworm of the scalp. Sycosis represents a localized folliculitis affecting the beard or moustache, and due to the presence of staphylococci in the pilous follicles. Both the X-rays and radium are beneficial in this condition, as well as in ringworm of the scalp, the lesions disappearing within two or three weeks after the commencement of radiation. Only short applications of unscreened plaques are required. If sycosis has reached the stage of deep involvement of the cutis, together with hypertrophic dermatitis,

it is necessary to obtain depilation by means of the ultra-penetrating rays, care being taken not to destroy the hair follicles permanently or to produce sclerosis of the skin.

Lupus Vulgaris.—Radium was first employed in the treatment of lupus by Dr. Danlos. Wickham and Degrais report two cases in which excellent results were obtained from the use of radium alone (*Le Radium dans le Traitement du Cancer*, 1913, p. 82).

Experience indicates that the rays have no selective action in this class of case. They recommend the employment of sufficiently large doses of radium to produce a certain amount of destruction, with protection of the neighboring healthy tissue, and believe that when used in this way radium represents a most important adjunct in the treatment of lupus, although it cannot be depended upon to definitely and permanently cure all cases, or to invariably prevent recurrence.

The advantages of radium as compared with other methods of treatment, are that the treatment is not so prolonged, does not



Fig. 1—Lupus.
Appearance before Treatment.



Fig. 2—Lupus.
Appearance following Treatment.

entail so much inconvenience to the patient, and that it is effectual in cases in which the lesion is inaccessible to other methods. It is also of importance that the residual scar is much less disfiguring from a cosmetic point of view.

Lupus.—One of the most satisfactory cases healed has been that of a lady referred, in May, 1911, by Dr. James Third, of Kingston, for lupus of the nose and cheek, altogether of ten years' duration. The condition first began on the mucous membrane of the left nostril, and gradually spread. Various local treatments were used, as cauterization, electrolysis, X-rays, curettage. In 1905 her general health was very poor and the condition extended, and perforated the septum. Since then the skin at the alar mar-

gins had become involved, and shortly before we saw her nodules had appeared on the left cheek. The nose, when first seen, presented a most distressing appearance, the margins of the nostrils being covered with large unhealthy granulations. (Fig. 1.) There was a free foul discharge from the nostrils. Very heavy destructive doses of radium were employed, and as a result the diseased tissue has been removed and the nostrils now present a healed margin. The disease present inside the nasal cavity was treated by radium tubes, which were inserted into the nostrils. On the cheek the nodules present have cicatrized. This patient's general health is not very good, and close watch has to be kept over the condition for fear of a recurrence of the disease. The present local appearance is regarded as very satisfactory. (Fig. 2.)

Angiomata and Nevi.—Until within the last few years radium therapy has not been regarded as a routine procedure in the treatment of these conditions. Electrolysis was sometimes successful in removing small port wine marks, but this procedure was painful, and repeated seances were required. Good results were obtained from radium by Danlos, Rehns, Hartigan and others, and in 1907 Wickham and Degrais published a communication, in which they stated that they had treated successfully a very large number of cases of this nature, namely, port wine marks and angiomatous tumors. The duration of the applications and the strength of the dose should be regulated in accordance with the nature of the lesion, and in the case of superficial port wine stains the object aimed at should be to produce gradual obliteration of the stain by repeated applications, each individual case being judged on its own merits in regard to the length of time during which radiation can be tolerated and the frequency with which it is advisable to repeat the seances. The doses should be regulated so as to produce practically no perceptible reaction, and the best results are obtained with plaques or toiles of 50,000 to 100,000 radio-activity, screened with lead, the latter being covered with 8 or 10 sheets of black paper, in order to cut off the secondary rays of Sagnac. All writers on the subject are agreed in emphasizing the importance of avoiding, if possible, inflammatory reaction, and of protecting the normal skin surrounding the lesion. In the majority of cases slight superficial desquamation will occur in the course of four or five weeks after three sittings of one hour each. In estimating the dosage in repeated applications, it should be borne in mind that after radiation the tissues become more susceptible to the action of the rays, and the length of the sittings should therefore be reduced.

In cases of fairly large vascular angiomata, associated with the development of a moderate amount of fibrous tissue, a more destructive action is advisable, and this may be obtained by exposure to the unfiltered rays for three or four hours at a sitting; or a similar result may be obtained without so severe a reaction by using filtered rays and increasing the duration of the applications. In the case of very voluminous tumors, the "cross-fire" method may be employed with advantage, the apparatus being placed on the opposite sides of the tumor, which is then saturated with the rays. Wickham and Degrais were the first to demonstrate the beneficial effects of radium in this class of tumor, and their results have since been confirmed by many writers. Individual idiosyncrasies are, however, an important factor in determining the success or otherwise of the treatment, and the prognosis of radium therapy is not so good if the lesion has been previously treated by electrolysis.

In the vascular and pulsatile angiomata of softer consistency, the destructive action which is indicated in the variety referred to above, must be avoided, owing to the risk of hemorrhage. In cases in which the lesion represents a combination of all three forms of angiomata, we have had most success with the "cross-fire" method, of Wickham, using fairly strong plaques screened, applied in series consisting of five or six applications, and repetition being dependent upon its results.

The advantages of radium in this connection, as compared with other methods of treatment that have been recommended, are the facility of application and the fact that the treatment causes practically no pain, which is of special importance in view of the fact that a large proportion of the patients are young children. The cosmetic results also compare favorably with those of surgery, the X-ray or electrolysis, the scar being scarcely distinguishable from the surrounding skin.

NEW GROWTHS—BENIGN AND MALIGNANT.

Senile Keratosis.—This condition is very common in people above the age of fifty, and is liable in many cases to degenerate into cancer. Radium rays can be applied with facility, and have been found very efficacious, the pigmentation gradually disappearing, and the surface becoming completely normal in color and consistency in about five or six weeks after the application. If cure is not complete, a second application may be made a month later. In some cases, in which there is a scab of very hard consistency, it is

advisable to remove this with the curette, and to subsequently apply the rays.

Papillomata.—The common wart and other papillomatous growths which so frequently, either through irritation or advancing years, take on a malignant growth, respond most readily and conveniently to short exposures of radium rays. When so much stress is being laid, as it is at present, on the proper treatment of many pre-malignant conditions, one can see what a field radium-therapy has in this connection.

Keloids and Cicatrices.—It is necessary to make a distinction in this connection between the cicatrices which are associated with keloids and those due to other causes, in view of the fact that Wickham and Degrais are of opinion that keloid tissue reacts in a selective manner to the radium rays, whilst the normal cell does not do so. Keloid cicatrices may be dealt with either by the destructive or the non-destructive method, the former consisting of treatment by unscreened plaques, with the object of producing a severe superficial reaction. If the non-destructive method is selected, screened plaques are used, with exposures of longer duration, the result being a gradual absorption and disappearance of the cicatrix without any visible signs of reaction. Wickham's so-called "cross-fire" method is often useful in dealing with large keloids, and it is advisable that the peripheral portions of the affected area should be thoroughly irradiated, in order to influence possible extensions of the growth beyond its apparent superficial limits.

Although radium may be regarded almost as a specific in regard to keloid tissue, it does not appear to have a similar affinity for non-keloid cicatrices, such as those following cervical adenitis, and therefore, although these may yield to a certain extent when treated by doses sufficiently large to cause a very destructive action, such favorable results cannot be anticipated as those which regularly occur in the case of keloid tissue.

Keloid.—In this connection we would report a case which was referred by Dr. Chas. Noecker, of Waterloo, with the following history, as furnished by Dr. Noecker:

"Miss M. R., *aet.* 26 years, had had the ovaries, which were enlarged and cystic, removed by Dr. Edmund E. King, Toronto, Ont., on June 25th, 1908, and the recovery was uninterrupted. About a year after the operation, the cicatrix became sensitive and developed into a characteristic cicatricial keloid. On several occasions subsequently small vesicles developed, which, however, healed readily. About July, 1911, a small inflamed area became infected and caused a great amount of suffering, to relieve which

morphia was administered. The infection was of the virulent type. Soon the wound became gangrenous, and the greater part of the cicatrix sloughed away, exposing the deep fascia over an area 3x3 inches. Local treatment was of no avail, and as a last resort the edges were excised, the remaining parts thoroughly curetted, and the wound closed with silk-worm gut sutures. The operated field had an angry appearance for some days, but we had primary union rather unexpectedly.

"Several months after the operation the cicatrix hypertrophied as before, and the sloughing process, apparently without external infection, began again. At this stage Thoremadin paste was used, and for a time with good prospects of complete success. The streptococci, however, won out, and the wound was 4 x 4 inches in extent when the case was referred for radium treatment."

When first seen there was an ulcer irregularly oval in shape, situated in the middle line of the abdomen, about one inch above the pubis. The ulcerated area was 4 inches in diameter, and presented hard, thickened edges, particularly on the left side, where it was one-half inch in depth. The base was covered with a dirty-brownish colored slough, and there was a free purulent discharge. The patient complained of a great deal of pain in the wound, and refused to have a section removed for microscopic examination. Heavy doses of radium were given around the margins and over the base of the ulcer, and within a month great improvement was noticed. Healthy granulations had sprung up, the discharge was less, and the area of ulceration had been reduced to two and one-half inches in diameter. Following this, however, the healing process was for a time arrested, and another slough formed on the base of the ulcer. She was given further heavy doses of radium, with the result that the base became clean, the hard edges softened down, and healing has steadily progressed since.

Epithelioma of the Skin.—This condition may be considered under the headings of rodent ulcer and fungating epithelioma of the skin.

Rodent Ulcer.—This is a lesion where radium gives us perhaps the most gratifying results, for we know how difficult a process it is to treat in many cases. To the action of radium on these cases Wickham has applied the term "selective" on account of the almost specific effect exercised by the rays in destroying the pathological cells and stimulating the healing process. The duration of exposure to the action of the rays should be varied to suit individual conditions, and should be chiefly dependent upon the man-

ner in which the tissues respond to the treatment. It is advisable to employ unscreened plaques of 100,000 radio-activity, containing 4 milligrammes of radium, and in the first place to give applications of an hour's duration on four successive days. In many cases one such series of applications will suffice, a scab forming in from ten days to two weeks, which gradually loosens and falls off, leaving a smooth, non-depressed scar, scarcely distinguishable from the surrounding skin. It is important that, if possible, the scab should not be interfered with, but allowed to detach itself naturally. If there should be suppuration beneath it, mild antiseptics may be applied. It is also advisable that the plaque should be rather larger than the ulcer, in order to include any foci which may be in the course of development outside the visible limits of the lesion. In the case of very small ulcers, practically no inflammatory reaction is necessary, but if the ulcer is larger and deeply situated, and if time is an important consideration, it is advisable to employ sufficiently strong doses to result in a certain amount of destruction. If there appears to be thickening of the subcutaneous tissues after the removal of the crust, applications of larger duration may be given, light lead screens of one or two-tenths of a millimetre in thickness being used to screen the plaque.

In an experience of between sixty and seventy cases, not one has failed to be benefited by radium treatment. Where the ulcer has extended deeply and involved bone or cartilage complete healing is not always to be obtained, but the advance of the process can be controlled. When confined to the soft parts, one can almost guarantee results.

Fungating Cutaneous Epithelioma.—Of this condition a very small proportion of cases do not yield to radium treatment, and Barcat and Balzer report 160 cases, nine only of which were unsuccessful. The failures are usually those cases in which radium therapy has not been resorted to until they are in a very advanced stage. As regards the method of treatment, radium may be used alone, or the growth may be treated surgically by curettage and subsequent applications of radium, the latter procedure being advisable if it is necessary to economize time.

As a rule, the operation can be performed under local anesthesia, radium plaques being applied forty-eight hours later, the dose being sufficiently large to destroy all peripheral cancer cells. In cases in which it is impossible or inconvenient to give fairly frequent applications, it is necessary to induce a more severe reaction than in those which can be kept constantly under observation.

After cicatrization careful watch should be kept for the slightest sign of recurrence in the scar or the surrounding tissue, and the applications repeated if any thickening is observed. Owing to the fact that the lesions are rather deeply situated in these cases, the ultra-penetrating rays sometimes give excellent results, and the same may be said of the "cross-fire" method. The deeper tissues may be influenced without excessive superficial destruction by applying the harder penetrating Gamma rays for fifty to one



Fig. 3—Fungating Epithelioma,
before Treatment.



Fig. 4—Same patient as in Fig. 3,
after Treatment.

hundred or more hours at a time. According to the statistics, the cured cases amount to 90 per cent., and in some of them cure has already persisted for seven or eight years.

The way in which these lesions respond to treatment is so striking that one may venture to instance two cases: T. F. T., *aet.* 54, referred by Dr. Bowman, of Penetanguishene, Ont., presented on October 29th, 1910, a fungating mass, as large as a fifty-cent piece, below and behind the left ear. There had been a small ulcer for about five years, but latterly the growth had been very rapid. The growth was covered with cauliflower excrescences, and projected $\frac{3}{4}$ of an inch above the surrounding skin. The edges were hard and everted, and the tissues about were quite hard, as though the growth extended to some depth. There were no enlarged glands to be felt. Under local anesthetic the vegetations were removed, and the next day radium applications were made. These were repeated for four days, and then the patient returned home. He was seen again in three weeks, at which time all that was observed was a small, healthy ulcer, one-half inch in diameter. The epithelium was growing over it, and it looked as though it should be

healed completely in another two weeks. The edges were quite soft, as were all the surrounding tissues. A few more applications were made to stimulate the healing, and he again returned home. On December 15th he reported it "practically healed, with only a small crust to be detached."

This patient has been seen since and there is absolutely no ulceration or sign of recurrence.

Another patient, referred by Dr. H. L. Anderson, of Niagara-on-the-Lake, Ont., was first seen in September, 1911. The condition had started four years before behind the left ear. At the date mentioned the area was as large as a fifty-cent piece, with raised, hard, everted edges. (Fig. 3.) The part was curetted under cocaine, and a radium plaque, with one lead screen, left in position subsequently for 12 hours. When seen a month later there was still a small area three-eighths of an inch in diameter, which had not yet healed, but was quite healthy-looking. The healing process continued, and the condition has remained satisfactory since then. (Fig. 4.)

Appendix Stump Treatment.—J. H. Outland, Kansas City, (*Missouri State Med. Assn. Jour.*) has used successfully the self-invaginating hemostatic stitch for appendix stump in 539 cases. He ligates the meso-appendix as usual. Then the junction of caput coli and appendix is caught in a curved clamp, the convexity toward the bowel. Another curved clamp he fastens just above, and then cuts the appendix close to the lower clamp, the stump being cut as closely as possible to the cecum. A Lembert suture of linen thread is carried across the clamp. A stitch is taken parallel with the clamp. It is then carried across the clamp again and another suture taken on the opposite side. The last stitch he passes beneath the clamp. The handle of the clamp is now taken in the right hand, and the needle, with the end of the suture in the left. The assistant pulls on the other end of the suture, the clamp being gently released and the jaws withdrawn from under the loops. By pulling on the meso-appendix end of the thread, invagination is accomplished more perfectly. With the use of a curved clamp it is easier to keep the loops of the thread over the clamp. The use of a rather heavy clamp prevents bowel contents from escaping. After the two ends of the thread are brought over and tied, and before cutting, a loop is made under the artery of the appendix and again tied. This suture is hemostatic, and it is seldom necessary to reinforce the stump with other superimposed stitches.

THERAPEUTIC NOTES

Whooping Cough.—Sill (*Am. Jour. Diseases of Children*) has treated thirty-three cases of whooping cough with the pertussis vaccine. The effect of the vaccine was to diminish the number and severity of the paroxysms, as well as the amount of the vomiting. There were no untoward effects, nor any complications. The average length of time of cough was four and one-half weeks. The injections were given every two or three days until the symptoms were relieved, and produced no swellings or abscess formation at the site of injection, and no general constitutional symptoms. In milder cases it is not necessary to give so much nor so often. The youngest child treated was one month, and the oldest six years, most being between six months and three years. The doses varied from twenty million bacteria, in the mild cases, to sixty million in the severe cases. The cases did better when the vaccine was given in moderately large doses every other day or two. Prophylactic treatment was administered in families where one child was affected, and none of these contracted the disease.

Epidemic Meningitis.—S. Flexner (*Jour of Exp. Med.*) has gathered his data from wide sources, and for a period extending over several years. Antimeningitis serum was first used in 1906, and the figures include 1912. The serum has been now established as *the* treatment, and still further diminution in mortality may be looked for. In his report, 1,300 cases are studied, although there were far more treated with the serum supplied by the Rockefeller Institute. Of 1,294 serum-treated patients, whose cases are subjected to analysis, 894 recovered, and 400 died—a mortality of 30.9 per cent. Fifty-six cases showed relapses at different intervals. In 30 per cent. of 830 recoveries permitting judgment as to termination of the disease, the termination was by crisis; of the 56 relapses, 40 recovered and 16 died. The number of permanently injured among the serum-treated is small, and of all sequels, deafness remains least influenced. The injury to the internal ear takes place early, sometimes before the diagnosis is established. The arthropathies have been reduced, and the tendency to hydrocephalus in the young diminished.

Tonsillectomy.—R. Schreiber (*Ther. der Gegenwart*) describes R. Klapp's instrument, by which any general practitioner in his office can remove a tonsil with ease. In the sixty cases he has used

it, there has never been any after hemorrhage. This instrument is a Luer gouge-forceps modified. The deep spoons take up the tonsil without it being crushed, and the only cutting surface is where the blades sever the root of the tonsil. The forceps are so held that one blade is above and the other below the tonsil. The instrument is pressed against the side wall of the throat; the tonsil glides into the cup of the upper and lower blades, or spoons. There is no crushing or loss of substance; and the removed tonsil only shows the small cut surface at the rear.

Tapeworm.—*Medical Press and Circular* gives the following treatment for tapeworm: The patient is put on a milk diet in the evening. The next morning he is given, every hour, one cachet of thymol 15 grains, for three doses. One hour after the last cachet, a dose of sulphate of soda (not castor oil) is administered, and in two hours after, or in the course of the afternoon, the worm will be ejected entire. During the day of the treatment care should be taken that the patient should not take castor oil or alcohol in any form. It is claimed for this treatment that it is the most effectual, the cheapest and least dangerous of all anthelmintics.

Undescended Testicle.—Gorse and Swynghedanw (*Lyon Chir.*) have treated nine cases of undescended testicle with excellent results. In this radical method they first incise the scrotum. Then a large glass marble is introduced in case of children, or a china egg in the case of adults. The skin is then sutured over it. The foreign body is worn for two months, which, by this time, prepares the scrotum with a normal bed, and the testicle, when brought down, has no tendency to slide upward. The patients do not have to stay in bed, but have to keep quieter than usual while the foreign body is being worn.

Obesity.—Galisch (*Sem. Med.*) treats a patient with obesity by ordering in the morning a cup of tea with buttered bread. If too hungry to await luncheon, an egg with a small piece of bread and butter at 10. At 1, luncheon consists of meat, vegetables, salad, and preserved fruit. In the afternoon, coffee, with biscuit or white bread and butter. In the evening, nothing but a small piece of bread and butter. For the first few days the patient will feel quite hungry in the evening, but this quickly passes away, and he soon

gets into the habit of eating more at the first two meals, the excess being counteracted by exercise and work in the afternoon. One can readily see this régime is founded on the idea that the food taken in the evening contributes to the adipose formation. Galisch's patients have all lost one to two pounds a week. When the normal weight is attained, some increase may be allowed to the evening meal. The patients should be weighed regularly.

Granulating Wounds.—G. B. Massey (*N. Y. M. J.*)⁶ has found two ointments most useful for the small and large wounds remaining after the destruction of malignant growths. He has also used them in other wounds, which has established their general value. The most important one is zinc oxide ointment, diluted with four times its weight of semi-fluid petrolatum. He uses this on the wounds freely, so that it alone comes in contact with the granulations. No water or irritating substance is allowed to come in contact with the wounds. If this ointment overstimulates and overreddens the granulations, the other ointment is used. This is the boric acid ointment of the pharmacopeia.

Puerperal Eclampsia.—R. A. Gibbons (*B.M.J.*) considers the best results in treatment of puerperal eclampsia will come when this condition is understood to be a poison in the blood acting on the nerve centres. The treatment of all poisoning cases, when the poison is known, is by an antidote and elimination. When the poison is unknown, then by dilution. If a patient suffering from puerperal eclampsia is regarded as one suddenly poisoned, then she should be treated accordingly. Gibbons believes anything which will strengthen the defensive forces will do good, and that venesection offers the best service, combined with elimination and dilution with saline transfusion. Recent statistics show that in the hands of some obstetricians the maternal mortality is under 5 per cent., where the uterus has been rapidly emptied.

Pneumonia.—H. Leo (*Deut. med. Wochen.*) reports excellent results in experimental pneumococcus infection in rabbits with a saturated aqueous solution of camphor by the intravenous method. It is better given in this way than subcutaneously in oil. Thirty-eight rabbits were inoculated and then given an injection of 20 c.c. every hour. They lived much longer than the controls.

Reviews

Blood Pressure. Technique simplified. By W. H. COWING, M.D. Price \$1.00. Rochester, N.Y., Taylor Instrument Companies. In Canada, J. Stevens Company, 145 Wellington St. W., Toronto.

The need for a practical handbook on Blood Pressure and Sphygmomanometry has in recent years become an ever-increasing one. Especially in life insurance work has this need been emphasized. Whilst this book makes no claim to meet the full requirements of the specialist, it does satisfy a certain requirement for the general practitioner, in that it is concise, practical and up-to-date, which makes it a desirable acquisition in modern diagnosis. It can, therefore, be heartily recommended.

A Treatise on the Mineral Waters of Vichy. For the use of practitioners. By CHARLES CATAR, M.D. (Paris), Consulting Physician at Vichy. London: H. K. Lewis.

Vaughan Harley, M.D., Professor of Pathologic Chemistry, University College, London, England, who writes a foreword to this small book, says it will be found of value to medical men, as it gives a complete resumé of the whole treatment of disease by mineral waters in general, but Vichy in particular.

Vaccine Therapy.—Dr. R. W. Allen's book on "Vaccine Therapy," which was noticed in our issue for May, may be obtained from the Macmillan Company of Canada, 70 Bond St., Toronto, who publish this book in Canada for the English publishers, H. K. Lewis, London.

Leukemia.—Jerome Meyers and T. Jenkins, Albany, N.Y., consider benzol valuable in the treatment of any kind of leukemia. Clinical experience of its use is still scanty. It reduces the white cells, but not to normal. There is greatly diminished or normal spleen, a gain in weight and strength, and loss of fever. Usually the red corpuscles and the hemoglobin are influenced favorably. With Roentgen rays combined, even better results may be obtained.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

Obstetrics: Arthur C. Hendrick.

Pathology and Public Health: John A. Amyot, Chas. J. C. O. Hastings, O. R. Mabey, Geo. Nasmyth.

Physiologic Therapeutics: J. Harvey Todd.

Psychiatry: Ernest Jones, W. C. Herrman.

Ophthalmology: D. N. MacLennan, W. H. Lowry.

Rhinology, Laryngology and Otol-ogy: Geoffrey Boyd, Gilbert Royce.

Gynecology: F. W. Marlow, W. B. Hendry.

Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.

Anesthetics: Samuel Johnston.

VOL. XLI.

TORONTO, JULY, 1913.

No. 1

COMMENT FROM MONTH TO MONTH

Itemized Accounts and Medical Service are the subjects of two editorial notes in this issue. One may be read with much profit by the laity, while it will appeal more strongly to the profession. The other will appeal strongly to the public, but may be considered, with much profit, by the profession. There is no getting over the compelling force of a sane, sober public opinion.

As Dr. Powell well says, the medical man can never apportion the fee to represent the services rendered. A person who, by mistake, takes poison, and has his life saved by the prompt action of the physician, may be indebted to that physician for his earning capacity for the balance of his life, but often a five-dollar bill, or nothing at all, is the physician's remuneration. Truly, human life is sometimes cheap.

A man whose wife is conducted safely and easily through her confinement pays less than where chloroform, version, instruments, stitching are required; yet all had rather the former course prevailed. Could he be assured of a normal accouchement, would he be willing to pay more?

The medical man must consider the position in society of the patient, and the value of that patient's services and life to the community. From the physician's own viewpoint, there are many factors to be taken into account, time consumed, hour (day or night), office or house call, work done, advice, etc.

As in Ontario the representatives of the people long ago wiped off the statutes the tariff of medical charges, so the compelling force of a sane, sober public opinion should now leave it to the medical

man to decide what his services are worth to the individual. As a class, they are not mercenary. It will not do to make comparisons with conditions in other walks of life, where supply and demand fix the price. The physician is in a class by himself.

There are times where "professional services rendered" must need be the sum total of information conveyed in the physician's account; but this has now become somewhat archaic, and often serves only for a butt or a gibe. Certainly, when a bill covers several calls over a period of time, and different members of the family are treated, an itemized account would best meet the wishes of the people, and by doing so the profession would place themselves in a better light before the public. The profession should at all times be over-careful in combating public opinion.

THE CANADIAN MEDICAL PROTECTIVE ASSOCIATION

The Annual Meeting will be held on the morning of Thursday, June 26th, at London, at the close of the symposium on the diseases of the stomach, on the programme of the Canadian Medical Association. R. W. Powell, President; J. Fenton Argue, Sec.-Treas.

Trichinosis.—T. F. Leen (*Bost. Med. and Surg. Jour.*) thus describes the treatment of trichinosis: If but a short time has elapsed since the patient ate the infected food, the stomach should receive copious washing and free catharsis tried. Santonin, extract of male fern, glycerine, benzol may be given in frequent large doses. The cathartics used may be calomel, compound infusion of senna, castor oil, etc., the object being to keep the intestine thoroughly clean and wash away any worms which have temporarily lost their grip. To kill the embryos in the blood, salvarsan and neosalvarsan are well worthy of trial. Another method of killing or destroying the embryos is the intravenous injection of colloidal silver in doses of 4 to 6 c.c. of a 2 per cent. solution.

Editorial Notes

CANADIAN MEDICAL ASSOCIATION

The Provisional Programme for the London meeting of the Canadian Medical Association, on the 24th, 25th, 26th and 27th of June, is published in this issue, and gives evidence of advanced progress in the preparation for this meeting. A programme containing the names of such men as Dr. Paterson, of London, Eng.; Dr. Billings, of Rush Medical College, Chicago; Dr. Barker, of Johns Hopkins; Dr. Stockton, of the University of Buffalo; Dr. Ochsner, of Chicago; Dr. Angus MacLean, of the Detroit College of Medicine; Dr. Cuklen, of Baltimore; Dr. John B. Murphy, of Chicago, not to mention the large representation of distinguished Canadian physicians, from the Atlantic to the Pacific—such a programme should attract a very large concourse of medical men to the Forest City to this meeting of an Association which has now become one of the largest and most important of the medical associations of the world.

The popularity of London as a convention centre, the recognized hospitality of its citizens, and the attractiveness of the city itself and its surroundings leave nothing to be desired to ensure the medical profession of Canada a delightful holiday outing, as well as a profitable educational treat. The medical fraternity of London are sparing no pains to make this the record-breaking meeting of the Association, and their efforts are deserving of a hearty response on the part of the profession throughout the Dominion.

Elsewhere will be found an intimation of the excursion rates offered by the railways. Special attention is directed to the fact that to ensure single return fare, it will be necessary for everyone buying a ticket to secure a standard certificate at home station, at commencement of journey.

From Fort William and all points East, tickets for the going journey must be purchased between June 20th and June 26th, inclusive; from points West of Fort William, June 18th and June 22nd. Return good until July 1st and 12th, respectively.

The revised programme will be furnished in due time to all who are to take part in the programme, and further copies will be supplied at the time of the meeting.

INFLUENZAL MENINGITIS. ANTI-INFLUENZAL SERUM

Some four years ago Dr. Simon Flexner perfected the anti-meningitis serum which now is the recognized treatment for acute cerebro-spinal meningitis, and has in its use reduced the awful mortality in that disease from 80% to nearly 20%. In his goodness of heart and generosity he was anxious to spread this blessing everywhere. For this purpose he chose various centres from whence the distribution should take place, and amongst these, we are glad to announce, was the Hospital for Sick Children in Toronto.

He has also been working for some years upon the meningitis caused by influenza, and has at last succeeded in perfecting a serum of undoubted value. This discovery he has again, with characteristic kindness, immediately given into the hands of the medical profession, and the only remuneration he demands is a full clinical report of the cases in which it is used. The benefit of this serum also has been given to the Hospital for Sick Children, Toronto, and can be obtained upon application. Moreover, the Board of that institution will, at the request of any physician, send one of its laboratory physicians to make the subdural puncture, give a thorough bacteriological examination of the fluid, and administer the spinal injection in suitable cases. This, we feel sure, will be a boon to any physician not having the necessary time or technique at his disposal.

DR. FRIEDMANN AND MEDICAL SERVICE

Editor Journal,—Your editorial in to-day's issue (*Ottawa Journal*) concerning Dr. Friedmann's alleged discovery for the cure of tuberculosis is illuminating, if not convincing.

From time immemorial it has been held to be quite unethical to convert into money for personal gain or aggrandizement a real scientific discovery that will be a lasting benefit against disease or deformity. Such discoveries by real pioneers have always been held to be the property of the profession to assist them in their daily work against the ills that human flesh is heir to. Indeed, we may go so far as to say that this privilege, whether it be in the nature of cure or prevention, is the living glory of the medical profession, and has done more in the ages past to strengthen the bonds between the profession and their lay brethren than any other

feature of their work. To patent an instrument, or commercialize a so-called cure, or a real cure, has always been frowned down upon by those whose work and whose opinions are best worth having, and rightly so. Long may this ethical view remain untarnished.

Your concluding paragraph is amusing. Your question is that if all this is really true, why do the members of the profession charge anything for their services?

They really don't—that is, anything worth talking about—a certain emolument has been fixed rather by custom than anything else, to indemnify a human being for the wear and tear incidental to his daily and nightly grind in his fight against disease. He is not really paid for his services.

Many times money could not remunerate him. He is supposed to receive a modest pittance for certain services that simply enable him to live.

He can never apportion the fee to represent the services rendered. He tries to live decently and respectably, and endeavors to take his place in the world and do what in him lies to lighten the burden of life for his fellow-men; to ease the path of sickness and distress and smooth the pillow of death when it approaches.

He is only human and rarely, if ever, simulates the Divine. For these daily services, often surrounded with great anxiety and tremendous responsibility, he only asks what is reasonable and fair as amongst men, and oftentimes he is content to go without; yes, is obliged to, and rarely murmurs. He is satisfied if he has done a decent, conscientious day's work, and the pay (when it comes) is accepted thankfully; but if it is withheld (as is not unknown, or unusual) he glosses over the temporary disappointment and is not embittered, but proceeds to the next day's work undaunted and quite cheerful, working for his reward in the consciousness that he has fulfilled his duty.

R. W. POWELL, M.D.

180 Cooper St., Ottawa, May 1, 1913.

PROFESSIONAL BILLS CONDEMNED BY JUDGE

"Can I denounce in sufficiently strong terms that system followed by professional men in submitting accounts to clients? I look askance-on all accounts entitled 'professional services.' Give us details. The other system is bad, bad, excessively bad."

This was the substance of a scoring given professional men by Judge Leboeuf in the course of a case in the Circuit Court yesterday afternoon. Continuing his denunciation, Judge Leboeuf cited a personal experience:

"On the communication we receive from professional men, we read, 'For professional services,' with no statement as to what the services were, no details, nothing but 'Professional services.' Hence the recipient of such an account is often at a loss to know just what the 'professional services' were; and I say that they generally remain ignorant. I myself, some time ago, happened to receive a bill from a physician—one of my friends. He billed me for \$85. I was surprised at the amount. I could not make it out. So I finally said to him: 'See here, my good friend, give me details. You say professional services. I want to know what those professional services were. Tell me the nature of them.' My good friend complying with my request, sent me a detailed bill. Would you believe me when I say that he had quite a few itemized entries dated a certain month—and the interesting part of it all is that during that month I was away in Europe, and could not have had consultation with him. This system practised by professional men is exceedingly bad."—*Montreal Star*.

CANADIAN MEDICAL ASSOCIATION PROGRAMME

PROVISIONAL PROGRAMME—FORTY-SIXTH ANNUAL MEETING.

—First Day—Tuesday, June 24th.—

9.00 a.m.—Registration fees.

Meeting of Executive Council.

10.00 a.m.—Meeting of Sections.

2.00 p.m.—Meeting of Sections.

8.30 p.m.—General Meeting:

Invocation.

Address of Welcome—His Worship the Mayor of London.

Election of the Association's Members to the Executive Council.

Address in Surgery—Dr. J. Alexander Hutchinson, Montreal.

Address in Gynecology—Dr. T. S. Cullen, Baltimore.

—Second Day—Wednesday, June 25th.—

9.00 a.m.—Meeting of Sections.

12.30 a.m.—Luncheon at Victoria Hospital.

2.00 p.m.—Meeting of Sections.

8.30 p.m.—General Meeting.

President's Address—Dr. H. A. McCaillum,
London.

Address in Medicine—Dr. Llewellys F. Barker,
Baltimore.

—Third Day—Thursday, June 26th.—

9.00 a.m.—Meeting of Combined Sections.

Symposium on Diseases of the Stomach, Medical and
Surgical Aspects—introduced by Dr. Alexander
McPhedran, Toronto.

Meeting of the Canadian Medical Protective Associ-
ation.

2.00 p.m.—Meeting of Combined Sections.

Symposium on Diseases of the Thyroid, Medical and
Surgical Aspects—introduced by Dr. A. J. Och-
sner, Chicago.

4.00 p.m.—General Meeting for General Business.

Meeting of Executive of Ontario Medical Association.

8.00 p.m.—Public Lecture (with lantern slides) on "National
Health"—Dr. Helen MacMurchy.

8.30 p.m.—Members of the Profession Resident in London will
entertain the Members of the Association at a smok-
ing concert in the New Masonic Hall.

—Fourth Day—Friday, June 27th.—

9.30 a.m.—Dr. Frank Billings, Chicago, will conduct a Medical
clinic before the Association.

Experimental and Clinical Study of the Functional
activity of the Liver, by means of Phenol Tetra
Chloro-phthalein, by Dr. L. G. Rowntree, Johns
Hopkins.

2.00 p.m.—Dr. John B. Murphy, of Chicago, will give a Lantern
Lecture on Surgery of Bones and Joints.

SECTION OF GENERAL SURGERY.

—First Day—Tuesday, June 24th.—

10.00 a.m.—Aneurysm of Posterior Tibial Artery—Drs. Alexander
Primrose and T. D. Archibald, Toronto.

Membranous Pericolitis—Dr. J. P. Kennedy, Wingham.
Dr. Gunn, Clinton—Title later.

Dr. R. Y. Parry, Hamilton—Title later.

Dr. G. T. McKeough, Chatham—Title later.

2.00 p.m.—Dr. H. A. Bruce, Toronto—Title later.

Dr. R. E. McKechnie, Vancouver—Congenital Hypertrophic Pyloric Stenosis.

Dr. I. Olmstead, Hamilton—Title later.

Dr. J. Halpenny, Winnipeg—Title later.

Treatment of Cancer by Fulguration—Dr. J. E. Hett, Berlin.

Dr. A. E. Garrow, Montreal—Title later.

—Second Day—Wednesday, June 25th.—

9.00 a.m.—Experimental Study of Regeneration of Bone—Drs. W. E. Gallie and D. E. Robertson, Toronto.

The Clinical Aspects of Regeneration of Bone as Manifested by a Study of Union of Fractures—Dr. E. S. Ryerson, Toronto.

A paper Dealing with Fractures—Dr. J. E. Lehman, Winnipeg.

Dr. Emil Beck, Chicago—Results of Eight Years Treatment of Sinuses and Abscesses with Bismuth Paste.

Dr. C. E. Starr, Toronto—Title later.

2.00 p.m.—Dr. H. R. Casgrain, Windsor—Title later.

Supra-pubic Prostatectomy—Dr. Angus McLean, Detroit.

“The Surgical Operation from the Standpoint of Time and Motion Study and Scientific Management”—Lantern Demonstration by Dr. E. V. Frederick, Peterboro.

The Etiology, Symptoms and Treatment of Gall-Stones—Dr. F. N. G. Starr, Toronto.

Surgical Problems in a Case of Meningitis—Dr. E. Archibald, Montreal.

Dr. H. P. H. Galloway, Winnipeg—Title later.

SECTION OF GYNECOLOGY.

—First Day—Tuesday, June 24th.—

2.00 p.m.—Dr. F. Fenton, Toronto—Title later.

Dr. H. M. Little, Montreal—Title later.

Dr. Adam Wright, Toronto—Anesthesia and the Forceps in Labor.

Dr. Hendrick, Toronto—Repair of the Lacerated Perineum.

—Second Day—Wednesday, June 25th.—

9.00 a.m.—Symposium on Eclampsia, introduced by Dr. D. J. Evans, Montreal.

2.00 p.m.—Puerperal Sepsis—Dr. J. A. Vineberg, New York.
Improved Operation for Displacements of the Uterus—
Dr. W. Cuthbertson, Chicago.
Professor Watson, Toronto—Title later.

P.S.—There will be a Section for the Eye and Ear and one for X-Ray Workers. The programme for these is not completed as yet.

SECTION OF GENERAL MEDICINE.

—First Day—Tuesday, June 24th.—

10.00 a.m.—Dr. Newell, Watford—Title later.

Infectious Arthritis, Etiology, Pathology and Treatment—Drs. G. W. Ross and C. S. Wright.
Clinical Importance of Some Pathological Interrelationships in Diseases of the Abdomen—Dr. H. B. Anderson.

Diagnosis of Tuberculous Bronchial and Mediastinal Glands—Dr. J. H. Elliott.

2.00 p.m.—Acute Bronchitis and Pneumonia of Infancy and Childhood—Dr. H. McGugan.

Treatment of Congenital Syphilis with Salvarsan—Dr. G. S. Strathy.

Treatment of General Paresis and Tabes with Salvarsan—Drs. Strathy, Bates and McVicar.

Functional Disturbances of The Nervous System, Hysteria and Neurasthenia. Antiquated Diagnoses—
Dr. G. W. Howland.

—Second Day—Wednesday, June 25th.—

9.00 a.m.—Psycho-Therapy—Dr. Glasco.

Action of Some Important Food Stuffs, Illustrated with Lantern Slides—Prof. V. E. Henderson.

Infection of Children in Tuberculosis—Dr. H. C. Parsons.

Some Psychiatric Problems as they Affect the General Practitioner—Dr. C. S. McVicar.

Early Symptoms and Treatment of Psychoses—Dr. E. Ryan.

2.00 p.m.—Dr. Keibel—The Value and Limitation of the Wassermann Reaction.

Gastric Hyperacidity—Dr. F. W. Rolph.

Pituitary Extract as a Cardiac Stimulant in Pneumonia—Dr. A. McPhedran.

Endocarditis in Influenza—Dr. J. H. McPhedran.

Erythema Multiforme and Anaphylaxis—Dr. Sladen.

Occurrence of Fluid Exudate in the Pleural Sac in Croupous Pneumonia—Dr. Goldie.

Hereditary Chorea—Dr. Shannon.

Vago Tonics—Dr. A. H. Caulfeild.

MEETING OF COMBINED SECTIONS.

—Third Day—Thursday, June 26th.—

9.00 a.m.—Symposium on Diseases of the Stomach—Introduced by Dr. Alexander McPhedran.

Drs. Martin, Montreal; Aaron, Detroit; Stockton, Buffalo, and others will discuss the Medical side.

Drs. Paterson, London, England; Ochsner, Chicago; C. E. Starr, Toronto; Angus McLean, Detroit; Archibald, Montreal; McKechnie, Vancouver, and others will speak on the Surgical side.

2.00 p.m.—Symposium on Diseases of the Thyroid—Introduced by Dr. A. J. Ochsner, Chicago.

Drs. Hoover, Cleveland; Lafleur, Montreal; Barker, Baltimore; H. B. Anderson, and others will deal with the Medical side.

Drs. Halpenny, Winnipeg; Bruce, Toronto; Olmstead, Hamilton; Bingham, Toronto, and others will speak on the Surgical side.

LABORATORY SECTION.

Tuesday Afternoon.

Dr. C. G. Imrie, Toronto—"Some Facts with Regard to Fatty Degeneration of the Heart."

Dr. Fletcher McPhedran, Toronto—"Haemolytic Action of the Extracts from Organs in Pernicious Anemia."

Dr. D. G. Revell, Edmonton—"Examining Colonies in Plates."

Dr. F. B. Bowman, Hamilton—Title not settled.

Dr. Fraser B. Gurd, Montreal—"The Toxins of Intestinal Obstruction. A preliminary note."

Dr. E. W. Archibald, Montreal—"Ascending Infection of the Common Bile Duct."

Dr. Geo. Shanks, Montreal—"A Study of a Case of Splenomegaly."

- Dr. F. T. Tooke, Montreal—"Alterations in the Cornea Coincident with the extraction of the senile form of Cataract."
- Dr. Grant Campbell, Montreal, and Dr. W. G. Hepburn, Montreal—"A Case of Cardiac Anomaly."
- Dr. O. C. Gruner, Montreal—"The Spleen in the Light of Recent Histology."
- Dr. E. J. Mullaly, Montreal—A demonstration—title later.

Wednesday Afternoon.

- Prof. D. Fraser Harris, Halifax—"On the Reducing Endo-enzyme of Internal Respiration."
- Dr. F. R. Miller and Dr. H. A. Sims, Montreal—"Methods of Stimulating the Cerebral Cortex."
- Dr. A. H. McCordick, Montreal—"The Protein, Fat, and Carbohydrate Contents of Certain Organs."
- Prof. V. E. Henderson, Toronto—Title later.
- Dr. H. J. Robertson, Toronto—"An Experimental Criticism of the Methods of Uric Acid Analysis from the Clinical Standpoint."
- Dr. F. W. Rolph, Toronto—"The Indicator Method of Estimating Gastric Acidity."
- Dr. A. H. Caulfeild, Toronto—"The Correlation of Biological Findings and Clinical Progress in Tuberculosis."
- Dr. C. K. Russell and Dr. Jos. Kaufmann—"Examination of the Cerebro-Spinal Fluid in Tabes and the Results of Treatment."
- Dr. R. G. Armour, Toronto—"Syphilis as Encountered by the Neurologist."

PUBLIC HEALTH SECTION.

Tuesday Morning.

- "Immigration and Public Health"—Dr. J. D. Pagé, Medical Superintendent of the Immigration Hospital, Quebec.
- "Chemistry and Public Health"—Prof. C. M. Carson, University of New Brunswick, Fredericton, N.B.

Public Health Legislation:

- Ontario—Dr. J. W. S. McCullough, Chief Health Officer.
- Quebec—Dr. J. A. Hutchinson, M. O. H., Westmount, Que.
- Saskatchewan—Dr. M. M. Seymour, Commissioner of Public Health.
- Alberta—Dr. D. G. Revell, Director Provincial Laboratories, Strathcona, Alta.

British Columbia—Dr. C. J. Fagan, Secretary Provincial Board of Health, Victoria, B. C.

“The Control of a Municipal Milk Supply”—Dr. G. G. Nasmith, Director of the Municipal Laboratory, Toronto, Ont.

Discussion: Dr. T. H. Whitelaw, M. O. H., Edmonton, Alta.
Dr. E. L. Williams, London, Ont.

“The Great Need of the Physician’s Active Co-operation in Public Health Work”—Dr. A. E. Wodehouse, Port Arthur, Ont.

Discussion: Dr. Jas. Halpenny, Winnipeg, Man.

Wednesday Morning.

“Report of the Special Committee on Medical Inspection of Schools”—Dr. John Stewart, Halifax, N.S.

“Modern Public Health Work”—Dr. C. J. O. Hastings, M. O. H., Toronto, Ont.

Symposium on “Venereal Disease as a Practical Public Health Problem.”

Dr. H. W. Hill, Director: Institute of Public Health, London, Ont.

Prof. A. S. Warthin, University of Michigan, Mich.

Dr. F. A. Clarkson, Toronto, Ont.

Discussion: Prof. J. A. Amyot, University of Toronto, Toronto, Ont.; Prof. Watson, University of Toronto, Toronto, Ont.;
Dr. D. H. Arnott, London, Ont.

“Mental Hygiene”—Dr. Llewellys Barker, Johns Hopkins University, Baltimore, Md.

Discussion: Prof. E. H. Young, Queen’s University, Kingston, Ont.

TUBERCULOSIS PREVENTION IN WINNIPEG SINCE 1908

A. J. Douglas, M.D., Medical Officer of Health, City of Winnipeg, in *Medical Officer*, says: “In the year 1908 the fight against tuberculosis was taken up in Winnipeg in a really serious manner, possibly as a result of the International Congress on Tuberculosis held that year in Washington.

In 1908 proper statistics regarding this disease were not available, comparatively few cases were notified, and many deaths from tuberculosis were ascribed to something else. There was no anti-tuberculosis society; there was no sanatorium; there was no dispensary; there was no hospital for advanced cases; there was no anti-spitting by-law; there was no day and night camp; there were no open-air schools; no educational work was being done worthy of

the name; tuberculosis was rife among our dairy cows; our laws regarding buildings and tenements left much to be desired.

In the five years that have elapsed progress has been made as follows: The Provincial Government maintains a sanatorium which accommodates about 60 patients. An active Anti-Tuberculosis Society, aided by the Winnipeg General Hospital and a city grant, maintains a dispensary. The Society provides a nurse, who follows up cases in the home; it furnishes milk, eggs, and clothing; it maintains a night camp for tuberculous men; it publishes and distributes literature and has arranged for a large number of popular lectures on tuberculosis. The City of Winnipeg has constructed and operates a thoroughly modern hospital of 50 beds for advanced cases. The Health Department furnishes free disinfections, sputum cups, napkins, and medicines when required to tubercular patients; it exercises surveillance over all patients who remain at home; distributes literature; exhibits moving pictures; and endeavors to educate the patient, those about him, and the public at large, by these means, on tuberculosis prevention and cure. An anti-spitting by-law has been passed. Tuberculosis is being rapidly eliminated from dairy herds, very much the greater percentage of our milk is now from cows found tuberculosis-free by the tuberculin test, or pasteurized. We hope to see open-air schools in operation before very long.

New building and tenement house by-laws have been passed which make provision for adequate light, ventilation, and the prevention of overcrowding and congestion. The question of town planning and the providing of parks and open spaces is being dealt with. At least 75 per cent. of cases are now notified, and nearly all deaths from tuberculosis are now reported as such.

The result of the above shows in the death-rate, which has decreased from 123.4 per 100,000 of population to 94.4 per 100,000. We expect to reduce steadily the latter figure as time goes on.

FOUNDATION OF THE AMERICAN COLLEGE OF SURGEONS

A meeting of the Organization Committee, authorized and appointed at the Clinical Congress of Surgeons of North America, was held at the Willard Hotel, Washington, D.C., May 5, 1913. Dr. Edward Martin, of Philadelphia, acted as Chairman, and Dr. Franklin H. Martin, of Chicago, as Secretary. The object of the meeting was stated in the language of the following resolution bringing it into existence:

“Resolved, That this largest organization of surgeons on the American continent, the Clinical Congress of Surgeons of North America, shall assume the responsibility of standardizing surgery. This should be accomplished through representative committees and along the following lines: (1) It should formulate a minimum standard of requirements which should be possessed by any authorized graduate in medicine, who is allowed to perform independently surgical operations in general surgery, or any of its specialties. (2) It should consider the desirability of listing the names of those men who desire to practise surgery, and who come under the authorized requirements. (3) It should seek a means of legalizing under national, colonial, state or provincial laws, a distinct degree supplementing the medical degree, which shall be conferred upon physicians possessing the requirements recognized by this law as necessary to be possessed by operating surgeons. (4) It should seek co-operation with the medical schools of the continent which have the right to confer the degree of M.D., under the present recognized standards, and urge these colleges to confer the supplementary degree of surgeon on each of its graduates who have, in addition to their medical course, fulfilled the necessary apprenticeship in surgical hospitals, operative laboratories and actual operative surgery. (5) It should authorize and popularize the use of this title by men upon whom it is conferred, and its use should especially be urged in all directories of physicians, in order that the laity as well as the medical man can distinguish between the men who have been authorized to practise surgery and those who have not.”

This committee decided to commit the decision of the desirability of the method of organization, and the accomplishment of an organization which would fulfill the spirit of instructions of the Congress to the strongest representation of surgeons that could be gotten together. The results of the committee's efforts were that five hundred representative surgeons from all portions of the North American continent have consented to become founders of the organization under contemplation, and of this five hundred fully three hundred were present in Washington to fulfill their obligations. The Chairman stated that the object of the meeting was to formulate further and endorse the work that had been done by the sub-committee in regard to the standardization of surgery, for the benefit of the profession and the protection of the public. Every one was in sympathy with the object. The following resolutions were adopted:

“Resolved, That the surgeons who were invited to become the Founders of this Corporation are hereby declared Fellows of the College of Surgeons, and shall receive their election by the Board of Regents without further formality.

“Resolved, That such other surgeons in the territorial dominion of the College, whose surgeonship can be unquestionably approved by the Committee on Credentials be at once, without the formality of an examination, recommended to and received by the Board of Regents as accredited Fellows of the College of Surgeons.

“Resolved, That members of the societies of surgeons and surgical specialties holding accredited positions in the federation of societies constituting the Congress of American Physicians and Surgeons, shall also be accepted as Fellows of the College of Surgeons without the usual formality required by the Board of Regents.

The following resolutions regarding the selection of Fellows were likewise adopted:

“Resolved, That the prospective Fellows of the College be divided, for the purpose of classification, into four groups, to be designated A, B, C, and D classes, respectively. The A Class shall consist of the Founders of the College. The B Class shall consist of the members of the special surgical societies constituting the Congress of American Physicians and Surgeons, and one hundred each, nominated by an accredited committee, from the Surgical Section of the American Medical Association, from the Section of Obstetrics, Gynecology and Abdominal Surgery of the American Medical Association, from the General Surgical Section of the Clinical Congress of Surgeons of North America, from the Surgical Specialties of the Clinical Congress of North America, from the American Association of Obstetricians and Gynecologists, from the Canadian Medical Association, from the Southern Surgical and Gynecological Association, and from the Western Surgical Association. The C Class shall consist of surgeons of prominence of ten years in the practice of surgery or a surgical specialty, and who, in the opinion of the Committee on Credentials, are eligible for Fellowship in the College without formal examination. The D Class shall consist of surgeons who cannot, in the opinion of the Board of Regents, be classified under A, B, or C divisions, and for whom the college must establish an examination or other evidence of acceptable qualifications.

“Resolved, That the Board of Regents through the Committee on Credentials limit the admission of Fellows to classes A, B, and C until the Board of Regents formulates a standard of requirements for Class D and reports the recommendations back to the Board of

Governors for approval at a meeting to be called by the Board of Regents at the time of the next meeting in Chicago, November, 1913."

The following officers were elected: President, Dr. J. M. T. Finney, Baltimore, Md.; Vice-President, Dr. Rudolph Matas, New Orleans, La.; General Secretary, Dr. Franklin H. Martin, Chicago, Ill.; Treasurer, Dr. A. J. Ochsner, Chicago, Ill.

Board of Regents—Dr. George E. Brewer, New York City; Dr. George E. Armstrong, Montreal, Can.; Dr. John B. Murphy, Chicago, Ill.; Dr. Edward Martin, Philadelphia, Pa.; Dr. F. J. Cotton, Boston, Mass.; Dr. Herbert A. Bruce, Toronto, Ontario; Surgeon-General W. K. Stokes, of the Navy; Dr. William D. Haggard, Nashville, Tenn.; Dr. Geo. W. Crile, Cleveland, Ohio; Dr. McKechnie, Vancouver; Dr. Charles H. Mayo, Rochester, Minn., and Dr. Harry Sherman, San Francisco, Cal.—*Medical Record*.

THE COUNTRY DOCTOR

'Twas a cold and blustering morning,
The doctor's sleep was sound;
His work the previous day was hard,
And he was tired, he found.

Alas! at five o'clock the bell,
Foreboding all things ill,
Rang loud enough to wake the dead;
The doctor's power was will.

The man was big and rough and brown,
His anxious eyes were kind;
"Our little girl's took bad," he said,
"She's wandering in her mind."

The doctor went, and glad was he,
Although it cost his rest;
He soothed the little, suffering child,
He always did his best.

He plodded home through drifting snow,
His day's work was begun;
"There's no work half so fine," he said,
"No work under the sun."

Then Dr. Reid was called away,
The drive was ten miles long,
The snow was deep, the horse was tired,
And he was six hours gone.

When he got home a list of woes
He heard from Billy Smith;
The day before, unloading hay,
He fell and broke his wrist.

His wife had had diphtheria,
The children had the mumps,
The hired boy slipped and broke his leg,
And he was in the dumps.

"But, doctor, do you know," he said,
"I've sold a pig to-day?
And since I have a little cash
It's you I'm going to pay."

His purse was thin in the extreme,
But happy went he hence;
He'd started on his doctor's bill,
And paid him fifty cents!

This piece of poetry is well worthy of our admiration in every sense. It is the work of the young daughter of my old friend, Dr. W. M. Mather, Tweed, and I feel satisfied the experiences named therein are those with which we have, very often, had to contend.

JAMES S. SPRAGUE, M.D.,
Perth, Ont.

ONTARIO MEDICAL ASSOCIATION

Owing to the fact that the Canadian Medical Association is meeting in this Province, the Ontario Medical Association will hold only a Business Session. This will take place on Thursday, June 26th, at 4 p.m., at London, Ont., in connection with the annual meeting of the Canadian Medical Association.

C. F. MCGILLIVRAY,
President.

F. ARNOLD CLARKSON,
Secretary.

News Items

Dr. J. A. Grant has been transferred from Toronto to Halifax. The Manitoba Medical Society met in Brandon on the 5th and 6th of June.

Dr. Robert H. Craig, Montreal, has resumed practice after several months abroad.

Dr. W. P. Caven, Toronto, has resumed practice after an operation for appendicitis.

Dr. Grace Ritchie England, Montreal, has been re-elected President of the Local Council of Women.

Dr. Charles O'Reilly, Toronto, has returned from a visit of several months' duration in Ireland.

Dr. R. A. Stevenson has returned to Toronto from England, much improved in health.

Dr. D. A. Shirres, who has been abroad for some months, has returned to Montreal.

The Canadian Public Health Association will meet in its third annual conference in Regina, Sask., on the 18th, 19th and 20th of September.

Dr. Herbert J. Hamilton, President of the Toronto Academy of Medicine, represented that body at the banquet tendered Sir Wm. Osler by the Montreal Medico-Chirurgical Society in May.

Academy of Medicine Toronto.—The following are the officers elected: President, Dr. Herbert J. Hamilton; Vice-President, Dr. H. B. Anderson; Secretary, Dr. W. Harley Smith; Treasurer, Dr. W. A. Young.

Dr. J. Bryce McMurrich wishes to announce to the medical profession that he is devoting his time to the treatment and care of cases of alcoholism, drug addictions, and that he has hospital accommodation for same at 622 Spadina Avenue, Toronto. Phone College 186.

A retired physician, a Toronto graduate, would like to get a position with a city practitioner to take charge of his books and do collecting. Would not object to assist in office occasionally. For further information address "Doctor," care of Dr. A. T. Mac-Namara, 2052 Davenport Road, Toronto.

HAMILTON WATCH.—The attention of our readers is called to the announcement of the Hamilton Watch Company, Lancaster, Pa., on page i of this issue. Canadian experts have informed us this is the best watch movement manufactured in America.



Are you particular as to the condition of the iron in your Bland preparations?

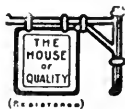
Frosst's Perfected Bland Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Publishers' Department

THE CHOLERA GRANARY.—Occidentals hold (theoretically at least) that cleanliness is next to Godliness. Among Orientals, on the other hand, it would seem better to be dirty and holy than to have clean hands but an impure heart. A step toward the happy combination of personal and religious purity has been taken by the appointment of a commission to inquire into the sanitation of Hindu and Mahometan pilgrimage centres. Here is no doubt a most delicate undertaking, since religious ideas may be involved which the Oriental is likely to adhere to with absolutely unreasoning fanaticism. One need but recall how cartridges greased with pig-fat, which the Sepoys were injudiciously expected to extract with their teeth, precipitated the Mutiny, the Calcutta Black Hole and the rest, to realize how ticklish might prove the task of grafting Occidental sanitation upon Oriental civilization. And yet if the cholera and like "scourges of Allah" are not every few years to endanger Europe and the Western World, the Eastern granary from which these pestilences are supplied must be cleared out and closed up. Though cholera does not disappear entirely in winter, its essential bacterium loses much of its virulence during hibernation; the disease is not fairly active until the spring, when it is likely to appear, in Russia, for example, as the Asiatic guest. And by what route does this visitor travel to its destination? One of two: from Mecca to the Mediterranean countries—Greece, the Adriatic, Italy, Marseilles, Northern Africa; and by way of the Caucasus, the Don, the Dneiper, the Danube northward and westward to Vienna, St. Petersburg, the Baltic and to Berlin and the ports whence trans-Atlantic vessels sail. Mecca has, since Mahomet, been in some sort a secondary cholera *entrepot*. It is an epic reflection of history that had Mahomet's hegira been made in the winter rather than in the hot season, millions of human lives would not thereafter have ended prematurely, immeasurable suffering and stupendous material loss would not have come to pass. Awful Mother India has through countless generations fed her children the cholera; especially in the Ganges have they drunk it in and absorbed it, while they have sought to purify their souls in that ghastly stream. Thence have the Asiatic Mussulmans, thus saturated with the cholera vibrio, been making their pilgrimages Mecca-ward—overland by foot or caravan; or through the Red Sea by sail and latterly by steam; and now also by the Hedjaz Railroad. It is this railway which especially makes Occidental sanitarians anxious;



Men's Coats for Spring Wear

Chesterfield slip-on and the popular Guards coat with strap and pleats at back.

000

Harris tweeds, Scotch cheviots, Irish home-spuns and West-of-England covert coatings.

\$25, \$30, \$35, \$40

Rain Coats in double texture Paramattas, Gabardines and proofed cashmere cloths.

\$10 to \$30

*Silk Hats, Derbies, Soft Hats
Caps and Gloves*

Fairweathers Limited

84-86 Yonge Street

MONTREAL

TORONTO

WINNIPEG

because it is a much speedier route than by caravan or water, and may get its pilgrim passengers to Mecca during the incubation period of the disease, when it may pass unrecognized. Most of these pilgrims have been and are absolute fatalists, and neither know nor care about sanitary precautions—in the observing which no “merit is to be acquired” (to use Kipling’s superb phrase in “Kim”). So these pilgrims have through the centuries been visiting the Prophet’s shrine, and have bathed, when they could, in the Holy Wells (it is now forbidden) in order to reach the very pinnacle of holiness; and thus has Mecca become a cholera-granary subsidiary only to India. Then European and African Mahometans, just as devout and every whit as fatalistic as their Asiatic brethren, make their pilgrimages into Arabian Mecca; and these pilgrims, by commingling with their fellow-worshippers in the Holy City, have in their own home-coming distributed the dreadful infection to Northern Africa, to Egypt, to Syria and the Mediterranean countries.—*Scientific American*.

THE NEW TREATMENT FOR GONORRHEAL INFECTIONS.—Physicians who have had any considerable experience in the treatment of gonorrhea and its complications know how stubborn many of these cases are; how, not infrequently, they resist ordinary routine methods for weeks and months. The average general practitioner encounters these cases with unpleasant forebodings. He realizes that treatment of them is more or less empirical. He experiences a sense of relief when he can bid “good-bye” to one of them—when he can discharge it as “cured.” For the reasons enumerated any new therapeutic agent which promises a fair percentage of recoveries in gonorrhea and its sequelae is certain to be accorded a warm reception by the medical profession. Is Gonorrhea Phylacogen such an agent? There is a basis for the belief that it is. Here are some figures that seem to lend assurance: “660 cases treated; 539 recoveries; 121 failures.” These figures pertain to carefully recorded cases, under observation in various sections of the country, and embracing both hospital and private practice. They include such complications as gonorrheal arthritis, chronic urethritis, vaginitis, epididymitis, orchitis, prostatitis, vesiculitis, ophthalmitis, iritis, endometritis and salpingitis. These cases were reported to Messrs. Parke, Davis & Co., producers of the Schafer Phylacogens. The results point clearly to this conclusion: Gonorrhea Phylacogen is worthy of careful, serious consideration.

A Grain of Wheat



A grain of wheat contains all the elements that are needed to completely nourish the human body and to sustain at top-notch efficiency all the mental and physical powers. It has been man's staff of life for over four thousand years. It is the most perfect food given to man.

But when you eat a wheat food be sure you get all the wheat in a digestible form. You need all the material in the wheat grain—the carbohydrates for heat and fat, the nitrates for making muscle, phosphates for brain and bone, the bran coat for keeping the bowels healthy and active. In making

SHREDDED WHEAT

we make all these elements digestible by steam-cooking, shredding and baking into crisp, golden brown biscuits, or "little loaves."

Shredded Wheat is not flavored, treated or compounded with anything. It is a natural, elemental food. You flavor it or season it to suit your own taste. Delicious for breakfast with milk or cream or for any meal in combination with berries or other fresh fruits.

All the Meat of the Golden Wheat

Made only by

THE CANADIAN SHREDDED WHEAT CO., LTD. NIAGARA FALLS, ONT.

Toronto Office: 49 Wellington St. East.

THE GOOD OLD SUMMER TIME.—The coming summer season will no doubt produce its usual crop of cases for physicians peculiar to the season. Insect bites, bee stings, sunburn and its frequently following dermatitis, strains and small joint injuries from baseball and other sports, sprained ankles, ecchymosed eyes, infected wounds, etc., will demand the first attention of the physician and a second thought will be a suitable remedy. All inflammatory conditions, whether from infective or traumatic causes, rapidly subside when dressed with Antiphlogistine. Its convenience of application, with the assurance of satisfactory therapeutic results, makes it almost indispensable in emergency work.

THE FRENCH COMMISSION ON ANTI-TYPHOID VACCINATION.—The report of this commission of the French Academy of Medicine is summarized as follows: (1) This method of procedure has been carried out on more than 100,000 soldiers in the English, German and American armies. (2) The benefits of preventive inoculation are seen in the comparative statistics of typhoid mortality and morbidity. Only half as many of the vaccinated have had typhoid fever as of the non-vaccinated. (3) Vaccination does not abolish typhoid fever; it diminishes its frequency, and the vaccinated who get the fever have it in a mild form. (4) Two or three inoculations with bacillary vaccine are better than one, and four will be necessary with antilymates of living bacteria. (5) Immunity lasts from one to four years, and hence re-vaccination is desirable. (6) Anti-typhoid vaccination is not dangerous. Dead bacilli when injected will cause fever and pain from twenty-four to forty-eight hours. An antigen of living bacilli will cause little or no pain. (7) Preventive vaccination should usually be performed before the appearance of the disease as an epidemic. (8) Vaccinated persons should not relax their precautions in the matter of food and drink for at least two or three weeks. (9) Soldiers and sailors may be vaccinated at their port of arrival if the disease is not epidemic at that port at that time, otherwise the inoculation should be made about three weeks before leaving home. (10) Vaccination should be performed only on those who are free from all form of disease. Those who are likely to be benefited by anti-typhoid vaccination are: (a) Physicians, nurses and medical students. (b) Families in which there are bacillus carriers. (c) Those who have gone from salubrious localities to localities in which typhoid is epidemic. (d) Dwellers in cities in which typhoid is prevalent. (e) Soldiers and sailors who are sent to colonies where typhoid is epidemic or endemic.—*American Medicine*.

BOVRIL

AND DIGESTION

IN cases where milk is not tolerated it has been found that if a small cup of Bovril is taken first the milk is easily digested.

Bovril aids the digestion and assimilation of food.
See *The British Medical Journal*, Sept. 16, 1911.

Dr. Deimel Underwear

(LINEN-MESH)

The Dr. Deimel Underwear is the garment for people who desire to enjoy bodily comfort and cleanliness to a degree not obtainable from woolen or cotton underwear. For hot weather you need more than ever this cool, cleanly underwear. For the perspiring, overheated body, it is a refreshing luxury.

DEIMEL LINEN-MESH COMPANY

416 St. Catherine St. West.

MONTREAL, Can.

BRANCHES:

New York,

Washington, D. C.,
Baltimore,

Detroit,

San Francisco,
London, Eng.

Brooklyn,

We also sell the Dr. Deimel Linen-Mesh Supporters.

VACCINES IN COUNTRY PRACTICE.—Bacterial vaccines, being remedies that are administered by the attending physician, are particularly adapted to country practice. At first thought this might be questioned, but when we consider that most diseased conditions seen in every-day practice are due to but a comparatively small number of infecting organisms, and that most of these diseases are amenable to vaccine therapy, it can readily be seen that by carrying a carefully selected variety of vaccines nearly all the conditions met with may be adequately taken care of. In fact, not a large variety would be required. By carrying No. 22 for furuncles and other skin infections; No. 10 for infected wounds, scarlet fever, adenitis, etc.; Nos. 36 and 40 for infections of the respiratory tract; No. 35 for inflammatory conditions of the abdominal and pelvic organs; No. 1 for erysipelas, and a few other preparations covering typhoid fever, gonorrheal infections and whooping cough, etc., the average conditions found on the daily round may be cared for. Most successful physicians use few remedies, but thoroughly learn how to use them. The same rule applies to the use of vaccines. In the country, where the people live far apart, the physician often finds it impossible to see his patient often enough to carefully observe the effects of drugs prescribed so as to properly adjust size and interval of doses. Bacterial vaccines are usually given at from three to five-day intervals, and in extremely acute cases at daily intervals for several days. This places the physician in a position where he can accomplish what he is after without being subjected to the danger of having his patient over-dosed by improper attention to his directions and possibly senseless meddling by those in attendance. Where infants and children are treated by giving vaccines, we are always certain that the remedy was administered, while drugs may and may not be given. In acute infections certainly more can be accomplished with vaccines than by prescribing drugs, and physicians who are familiar with their use feel more at ease until the next call, knowing that an efficient remedy has been given his patient and one that cannot be tampered with.—*The Bacterial Therapist*.

Dominion Medical Monthly

And Ontario Medical Journal

VOL. XLI.

TORONTO, AUGUST, 1913.

No. 2

Original Articles

MANY VIEWS RELATIVE TO JEALOUSY, DIVORCES, DELUSIONS, EROTOMANIA AND OTHER INTERESTS

BY JAMES S. SPRAGUE, M.D., PERTH, ONT.

When on my visit westward, a few years since, to the scenes of my commencement in practice, and to revive pleasant "memories imperishably aureoled," not forgetful of visits to several leading hospitals and brothers-in-arms, my first visit was with an eminent surgeon, whose late wife—divorced—is a distant relative of mine. Not knowing of this state of affairs before my arrival, I had abundant opportunity to learn the causes of the separation and much of the misery connected therewith; and that I should ever again hear of such woes and bewailings I could not believe, but such it was my fate, while in Chicago, where divorcees are said to be more numerous than marriages—and hell apparently has been let loose there, even as it was when, as a young M.D., I, without license, practised there for several months, leaving it for a home beyond the Mississippi, in the Hawkeye State. This was the Mecca of my aforementioned proposed revisitation after thirty-six years of absence from those with whom, for more than five years, I had pleasantly lived, and from whom I was not asked for license to practise, or even called a *foreigner* or *alien*; for, before the "seventies," nearly three-fourths of the number of graduates of our universities sought locations in the Western States, and a careful study of the movements of our young M.D.'s of to-day reveals the fact that the unwise medical restrictions in regard to licenses adopted by our prairie or Western Provinces are preventing our men from the making of their homes in our own lands, and the Western States, as ever, are welcoming the sons of the best of our people and our best men—the gifts of many prayers, cultured and God-fearing, yet self-expatriated from their native land, whose medical laws are burdensome and not patriotic; yet, whose laws allow

osteopathy, chiropractics, masseurs, chiropodists to be named as *Doctors*, and to practise without license; but this is an old subject, concerning which I have often written, and have found the profession indifferent to our rights, which most miserable and misleading cults, iconoclasts and low-breds are invading and attempting to break down.

Brother, there is before me a letter, and it was received to-day from one of the parties introduced as being named as a divorced person, and I present a portion of the said letter:

"I want to do all what is right, and I hope that I am Christian enough to believe in the Lord's prayer and to forgive any and all the same as I want to be forgiven." This is but a fragment of the epistle, which, howsoever callous one may be, if carefully read in association with all the letter states, would arouse your deepest sympathy, and cause your eyes, as mine are, to fill with tears, for jealousy is hell, and when it invades the doctor's home—especially the wife—hell has no fury equal to her, as told by Kipling.

To give expression to my views and to the parties concerned, as they, the men, are fellow-subscribers to D. M. M., I present the following analecta according to a promise made to-day, for they—both parties—can easily see herein their foibles, weaknesses and sins; and, having read, can let their late misguided wives read, reflect, or "nurse their wrath to keep it warm," or foolishly console *themselves* as not blameful.

"He for God only, and she for God in him," said Milton in his wisdom, which is much misconstrued by the Amazons—"half mother-fiends and the half-Maenads, armed and engined, with the morals of the hencoop and the jungle's code of laws," for the hand that should rock the cradle is now throwing bombs.

As explanatory of the heart of a doctor's wife who is jealous, I present the words of Laura Jean Libbey, as found in *La Tribune Medicale*:

"The girl who knows in her own heart that there is a drop of jealousy in the blood that goes coursing through her veins should think long and earnestly ere she accepts a physician for a lover, and steps from the altar his bride.

"A physician makes the most gallant lover the world holds, and the tenderest of husbands, because he is all sympathy and kindness. Being the wife of a doctor is an honor into which many sacrifices enter. The bride whom he takes to his bosom may be a blessing or a curse to him, a helpmeet, or, saddest of all, a drawback which may mean disaster to the holy calling he has chosen and

sacrificed much to attain. The jealously-inclined sweethearts ought to realize beforehand that women figure necessarily in his income, and that they must look at both sides of the picture their overwrought fancy may conjure up. A doctor's wife must ever bear in mind that the successful physician's fine automobile and the luxuries with which he surrounds her come from the couch of pain, which he must administer to at all times and places. She must realize that his life is one of sacrifices. He is never sure of an hour's restful outing. No one seems to notice if he is overworked and in sad need of a day off to gather his nerves together. Life is not a bed of roses for him. No accident is so harrowing that he may turn shuddering from it; he must administer to it, though his heart almost faints. No home is so humble and stifling but he must enter and give aid to the distressed; no night so stormy but he must brave it to save life and fight a valiant battle with grim death. Gentleness, the power of soothing, and cheerfulness must not be confounded by the jealous wife as growing interest on the part of the doctor for his patient, providing she be young and fair. The wife who plays the part of an eavesdropper at the keyhole is an abomination; a tornado ready to burst; a slumbering fire smoldering in a dry forest; a hurricane, in its fury cutting a deep path in the mighty ocean waves, is not more to be dreaded and guarded against. A doctor's wife, to be the mate heaven intended for him, should be all love, kindness and devotion to his interests, and in keen sympathy with his patients, their woes and sufferings. The doctor's wife should show him that his interests are hers. She should realize that he needs care and love, too; that his heart thrills under the touch of her caressing hand on his forehead when his temples throb hot and fierce for the want of sleep and rest. He appreciates the tender word and kiss she gives him; the hot dish prepared by her hands, when he comes in, weary, with the grey dawn. Home seems doubly dear to him when he knows there's a dearie of a little wife waiting for him, with his dressing-gown and slippers in her hand and love in her heart for him.

"A jealous wife is a sharp thorn in a doctor's side. It is no wonder that full many of them eye some bachelor brother of their noble profession with a sigh. A doctor's wife may make his home what she will—a haven of rest for him and those who come to his aid, or a hades of strife and contention, where patient and doctor are tortured alike.

"Much trouble could be avoided if the wife of many a good doctor used common sense in reasoning out and weeding out the

suspicious that have taken root in her heart, choking the flowers of love, trust, hope and peace until they wither on the stem. There are many secrets that come into the doctor's possession in the course of his practice, which may not be shared by those who are dearest and nearest to him. His wife should respect his professional duty to his patient and make no inquiries which he would feel justified in not replying to. Of all professional men, doctors are perhaps the most home-loving. They appreciate the vase of flowers placed where the patients' eyes may rest upon them, as well as their own. They love to hear their patients speak of her womanliness and sympathy; and their hearts sink with despair when a woman patient speaks of her curtness of speech and manner, and the question is put hesitatingly to them, whether or not the wife approves of her coming to him for treatment. Annoyance springs up in a doctor's heart at the hidden imputations that he is considered by his wife open to suspicion; then anger steps in, coldness, bitterness and indifference. When this happens the dove of love has been ruthlessly flung from the nest, and the doctor and the sweetheart he wedded are as far apart as though one of them were in the grave. Jealousy is worse than death in life to a physician's wife. Wise is she who makes a valiant fight against it, and conquers."

I recall the words of Antigone, whose noble defence of self and untimely death are yet fresh in memory, for they are fully expressive of the true woman's soul: "Unwept, and friendless, and unwedded, I, wretched, am conducted on this destined way. It is no longer allowed me, unhappy, to look on this luminary's sacred eye, and no friend mourns my unwept doom." And such to me appears to be she whom the courts (often polluted) have unwedded and cast out, blemished in a sense, even if given an allowance, and in the words of Stoddard, "She shook the ringlets round her head," and Tennyson said she "laughed in merry scorn," with a bursting heart for vengeance. Some 200 years before Christ, Mahabharata wrote these few lines:

"A wife is half the man, his truest friend;
Source of his virtue, wealth—the root;
Whence springs the root of his posterity;
A wife of gentle speech, a docile dove,
Sufficient wealth, unbroken health—
A friend, and learning that subserves
Some useful end—these are a living man's six greatest blessings."

Yet, as Shakespeare has it, "A woman moved is like a fountain troubled: muddy, ill-seeming, thick, bereft of beauty; and while it is so, none so dry or thirsty will deign to sip or touch one drop of it."

And some scholar has stated: "*Propter ovarium mulier est*;" and Gay, the poet, no doubt is correct when he says, "'Tis woman who seduces all mankind; by her we first were taught the wheedling arts." "Faultily faultless, icily regular, splendidly null," irregular, impersonal, or defective, "for age cannot wither her, nor custom stale her infinite variety," if in the neutral class.

From the classical pages of him who wrote "As You Like It," "The Taming of the Shrew," etc., we present from "Julius Cæsar" a brief dialogue:

Portia—I should not need, if you were gentle, Brutus, within the bonds of marriage, tell me, Brutus is it expected I should know no secrets that appertain to you? Am I yourself, but as it were, in sort or limitation; to keep with you at meals, comfort your bed, and talk to you sometimes? Dwell I but in the suburbs of your good pleasures? If it be no more, Portia is Brutus' harlot and not his wife.

Brutus—You are my true and honorable wife, as dear to me as are the ruddy drops that visit my sad heart.

Portia—If this is true, then should I know this secret. I grant, I am a woman; but withal, a woman that Lord Brutus took to wife. I grant, I am a woman; a woman well reputed: Cato's daughter. Think you I am no stronger than my sex, being so fathered and so husbanded? Tell me your counsels; I will not disclose them. I have made a strong proof of my constancy, giving myself a voluntary wound here, in the thigh. Can I bear that and not my husband's secrets?

Lionel Van Vleck, in his "*Away Back in Eden*," gives us his views "when Adam delved and Eve span":

Ere Adam saw a woman's face
 He led a discontented life.
He thought this world a lovely place
 When God created him a wife.
How quick was Mother Eve to plan
 The way that it was best to tread.
Each scheme for overthrowing man
 She looked upon with greatest dread.
All day she tried, at night she dreamed
 The thing that it was right to do;

Each wicked plot the devil schemed
She would not try to carry through.
 Her one ambition was to be
An inspiration and delight—
 The downfall of posterity
She fought against with all her might.

Note.—Read first the lines in italics, and then read the other lines. If you don't like it that way, why read it as it is.

"Yes, lovely woman is selfish yet;
 And little she cares so her wish she get;
 How doctors may trouble, and toil, and sweat,
 And charming woman is subtle of heart;
 In the world's great battle she can play her part.
 When she deals with doctors, behold her art."

And oft "the golden gleams of her early dreams are things of the long ago," as Evelyn said after the Thaw.

What is marriage, is answered by a popular jurist in these words: "In ancient times, marriage was founded solely upon the love of two persons of different sex. But what has marriage come to now? To-day the social system looks upon marriage as a financial contract made for the purpose of thwarting the possible swindling tricks of either husband or wife, and to lull the lurking suspicion of both, for the true foundation of marriage is money. The man looks out for a dowry, and the woman buys a protector and a steward for the management of her property, who is supposed to be more experienced than she would be." For she is not fissionary, and even thus married, and whose purse invited a husband, she, says Juvenal, should ever preserve her spinster's rights.

"Friendship often ends in love, but love never ends in friendship," and many a good friend is even lost by seeing him or her too often. More than one bride, says Rev. Dr. Crane, of Chicago, has spoiled her honeymoon because she would not let her husband get out of her sight long enough for him to realize how happy he was. The deepest want of humanity is now and then for something else. Keeping at it often brings success, and paresis in due time. Once there was a saint whose name is in the calendar, who said: "I went away from God that I might find Him." And one fact is that herein is a lesson of too much association as productive of estrangement; for it is equally a fact that "Not what a man and wife are wrecks most marriages, but it is what each thinks the

other ought to be," and some able writer and pacifier has consoled poor and irresolute humanity with these words, so pertinent in suggestion, and persuasively calm and moderate in expression of encouragement: "But in the long years liker must they grow—the man more of woman, she of man; he gain in sweetness and in moral height. Nor lose the wrest'ling thews that threw the world; the mental breadth, nor fall in childward care, till at the last she set herself to man, like perfect music unto perfect words," but essential it is they assume the pleasing conjugal embrasure in early life, she especially, and not contaminated by the curricula of Brooks' Academy. Dear old Homer, who wrote of wars, even of the very destructive wars and wrath of Achilles, even tells us: "Naught beneath the sky more sweet, more worthy is than firm consent of man and wife in household government." Yes, he wrote his grand epic, one hundred and forty years after the fall of Troy, occasioned by the abduction of fair Helen, of whom Marlow says: "Was this the face that launched a thousand ships and burned the topless towers of Ilium?" In these our days the majesty of our courts—Christian (?) courts—sets aside the teachings of the gods and heroes of Homer's age, and even the rulings of our Saviour are grossly infringed. Father Vaughan has declared that present-day society, while not yet at the cemetery, is leading rapidly toward it. Man and woman are in nothing alike; each gives to the other what the other has not. Their union should be indissoluble. Careless marriages bring about cradleless nurseries. The man and woman who come together to dictate terms of policy to God and defy His will and ignore His inspirations are playing a poor game. You are too heavily handicapped to run a race with God. We refer to the words of Professor George B. Foster, of the University of Chicago, and they are: "In the middle ages the woman question was solved in the cloister." The revolt against ecclesiastical virginity was the beginning of the woman movement. It emancipated woman from canonical law and sanctified authority. The modern demand of woman is not a new right; it is only a kind of right. Never was there a demand made for a human right that someone did not say it was against a divine right. It is so easy to convince ourselves that our rights are divine, and that anyone who differs is going contrary to divine rights. We, as men whose studies are on these subjects, necessarily so, in order at times to act as peacemakers in conditions and at times in which the church knows nothing and is in ignorance how to act, must agree with our brother, Sir Almroth Wright, and he is right in his words. I present them:

"For man the physiology and psychology of women is full of difficulties. He is not a little mystified when he encounters in her periodically recurring phases of hypersensitiveness, unreasonableness and loss of the sense of proportion. He is frankly perplexed when confronted with a complete alteration of character in a woman who is child-bearing. When he is a witness of the tendency of woman to morally warp when nervously ill, and of the terrible physical havoc which the pangs of a disappointed love may work, he is appalled. These upsettings of her mental equilibrium are the things that a woman has the most cause to fear. No doctor can ever lose sight of the fact that the mind of a woman is always threatened with danger from the reverberations of her physiological emergencies. It is with such thoughts that the doctor lets his eye rest upon the militant suffragist. He cannot shut them to the fact that there is mixed up with the woman's movement much mental disorder; and he cannot conceal from himself the physiological emergencies which lie behind."

To these not too cheerful emanations of wisdom we may add that the potentiality of possibilities has had in the Dark Ages, unfortunately for mundane quietude, recurrences and incidents, equally as widespread, named as delusions and madneses. We must, as men, virile men, not cease to love thee dearly and dearly prize thee, for "in thee we find a bulwark for the cause of man," and even the glory of thy sanctity, as of old, enthralled our memory and our souls, for we read from old church manuscripts of the date 1459 that choristers sang the virtues of Mary, the Virgin mother of our Redeemer, and in these words expressive of adoration for God's masterpiece:

"Fortem virili pectore, laudemus omnes Feminam quae sanctitatis gloria ubique fulget inclyta."

And yet with this eulogy, a clergyman, from his pulpit, recently said to his flock: "And thus, unwittingly, woman becomes again in the revolution of the ages what she was at first—the female creature, the possession, the thing for lust and for amusement, the cherished slave. For the death of a woman's soul follows when she pays with her body—a simple, immutable law."

Woman in America, splendid, free and queen! What have you done with the men who were given into your charge?

"Why art thou weeping, proud son of Rome?" asked the slave. Scipio's answer was: "Athens is in ashes. Carthage is burning. Rome's turn next"—and London? May L. Armitage writes:

"Tell me not in idle click-clack, woman is an angel child.
Men who once believed that fable, since have turned aside and
smiled."

However, let us console ourselves with this wisdom: "And man knows that woman is not fiend, nor saint, nor mixture of the two, but an average human being, "most remarkable like you." And she, as Tait describes, is but a passive factor in fact in the act of reproduction. And whether you have chosen or may choose one, "not learned save in gracious household ways," ask no more, seek no more for something *else*, or tempt her to look jealous, but satisfy her, for a woman, when a mother, is the true woman, yet she becomes not the perfect and ideal woman until the birth of her third beatification. Mrs. Browning's query will close my paper, to which, in time, I or you may reply:

"You have written my lessons of duty out;
Man-like, you have questioned me.
So stand at the bar of my woman's soul
Until I question thee."

SOLILOQUIUM.

For a distemper of this kind (said Prior)—(Blackmore and Hannes are of my mind):

If once it youthful blood infects—
And chiefly of the female sex—
'Tis scarce removed by pill or potion,
Whate'er might be our Doctor's notion.

THE ONTARIO HEALTH OFFICERS' ASSOCIATION

The Ontario Health Officers' Association, which met on the 29th and 30th day of May under the presidency of Dr. Adam Wright, was a decided success. The meeting was held in the Parliament Buildings, and the only fault to be found was in the fact that the place of meeting was rather small, as it was scarcely expected that the number in attendance, some three hundred, would be so great. This Association, the first meeting of which was held last year in connection with the Canadian Public Health Association, is composed of members of the Provincial Board of Health, the district Officers of Health, and the Medical Officers of Health of the various municipalities in the Province. There are

about 770 Medical Officers of Health in Ontario, and by law they are required to attend this meeting. Their expenses are paid by the local municipalities.

Papers were presented under various headings, such as: "The Duties of the Modern Medical Officer of Health in Cities and Towns," by Drs. Hastings and Dickinson.

"Communicable Diseases," including smallpox and cross-infection in isolation hospitals.

A feature of the meeting was the paper of Professor Whipple, of Harvard: "The Value of Vital Statistics in Relation to Public Health." This was an excellent paper. It was discussed by R. E. Mills of the City Health Department.

Dr. Hodgetts' paper on "Home Hygiene" provoked considerable discussion. He contended that medical inspection of schools, being part of Public Health work, should be placed under the Health Department, and not under the Board of Education, as is the case in Toronto. He claimed that the present system caused duplication of work and a waste of public money. He also objected to nurses making a diagnosis of cases. The Association evidently agreed with his views, as the members passed a resolution to be sent to the Minister of Education, asking that medical inspection of schools be transferred to the control of the Provincial Board of Health.

The City of Toronto tendered a luncheon to the members on the first day of the meeting. Mayor Hocken presided, and welcomed the visitors. Short addresses were given by Dr. Adam Wright, Dr. Hodgetts, Professor Whipple, Dr. Hastings, Dr. McCullough and Alderman Rowland, Chairman of the City Board of Health.

In the afternoon session Dr. Adam Wright gave a witty and instructive address, and Controller McCarthy, on behalf of the Mayor, gave an address of welcome. Dr. J. A. Amyot gave a public address to a large audience in the evening on the subject of "The Transmission of Communicable Disease." Motion pictures illustrating various phases of sanitary work, were provided by the Provincial Board.

On the second day the question, "Should the Medical Practitioner be Paid for Reporting Communicable Diseases, Births and Deaths?" started a lively discussion. The general opinion seemed to be that the medical man was entitled to some remuneration for this work, and a resolution was passed asking that the local municipalities be required to pay a fee of 50 cents for each birth and death, and for each case of communicable disease reported.

Dr. Parfitt and Miss Eunice Dyke read papers on subjects relating to tuberculosis. There was a free discussion. The milk question was taken up by Drs. G. G. Nasmith and A. W. Macpherson. The "Question Drawer" was most interesting. Drs. Amyot and McCullough gave answers to a large number of practical questions.

After a luncheon in the Parliament Buildings, short addresses were given by Reverend Dean Cody and Hon. W. J. Hanna. The last session was taken up with papers on "Sanitary Work Amongst Foreign Population," by Dr. C. N. Laurie; "Disposal of Waste and Garbage," by Dr. Hall, and "Disposal of Domestic Sewage," by Dr. R. E. Wodehouse. All of these were freely discussed.

Dr. C. J. Hastings, Medical Officer of Health for the City of Toronto, was elected President.

The Association meets annually.

QUESTION DRAWER—ONTARIO HEALTH OFFICERS' ASSOCIATION

BY DR. J. W. S. MCCULLOUGH.

1. Should the Sanitary Inspector attend quarterly meeting; and if he does, should he get paid extra in a municipality only paying \$15 to Sanitary Inspector?

Answer.—There is no provision for Sanitary Inspector attending meetings. He should get sufficient salary. He is not obliged to attend meetings unless instructed by the Board.

2. In case of disposal of sewage according to your regulations re septic tank, what course do you advise, where there is not sufficient ground for system?

Answer.—If there is not sufficient land area, the effluent from septic tank should be otherwise provided for. If the soil is unsuitable (clay), 12 or 18 inches of sand might be deposited over the clay, and the subsoil pipes laid in this, as described in pamphlet on "Sewage Disposal," issued by the Provincial Board.

3. What does this convention consider a reasonable minimum salary for M. O. H. in villages, towns and townships?

Answer.—In towns a reasonable salary might be based on the population, say \$100 for the first thousand and \$25 or \$50 for each additional thousand or portion thereof.

In townships it is difficult to say what is a reasonable salary. Some townships pay \$100, some \$5 or \$10. As soon as the M. O. H. demonstrates to the public that he is worth it, he will usually obtain a better salary. It would be a good plan for the M. O. H. to call public meetings for the various schools in his municipality and give an address to the ratepayers, children and teachers upon sanitary matters. If he desires it, the District Officer of Health will help him in any way possible.

4. Explain intentions of the Act in the case of payment for time in addition to hotel and railway fare:

(a) Where the M. O. H. has a special amount as salary.

(b) Where the M. O. H. has no salary specified.

Answer.—The M. O. H. can only collect for hotel and travelling expenses. Usually, however, the municipal council pays a per diem allowance for loss of time. Under Section 22 of the Public Health Act, the Local Board of Health might vote a sum for services rendered, which might be made to include the per diem allowance.

5. What are the duties of District Officers of Health in relation to township Local Boards?

Answer.—To advise and assist the M. O. H. in improving sanitary conditions of the municipality.

6. Can the municipal Local Board of Health compel the trustees to give a report as to the sanitary condition of school, and if they do not, and they send our inspector, can we compel the trustees to pay for expense of sanitary inspection?

Answer.—No, it is the duty of the M. O. H. to inspect the schools and disinfect at expense of the municipality, if necessary.

7. Can a man whose lot does not run 100 feet from his house, in a small country village, keep a pig?

Answer.—No. See paragraph 20, Schedule B, Public Health Act.

8. What should be given as *immediate* cause of death in this case: A man had paralysis agitans for three years and epithelioma of face for two years. He refused operation for the latter, and gradually becoming weaker, died at age of 79. The disease which caused death was epithelioma; but what would you put down for immediate cause, and how could you determine its duration?

Answer.—Cause of death, carcinoma of face, because it is of shorter duration. Immediate cause—none.

9. I visited a house suspected of having had scarlatina, and found a girl eight years old who, they said, had the "grippe" six

weeks previously. They stated positively that there had been no rash and no vomiting, but a sore throat lasting for two or three days. There was no sign of desquamation, but a pronounced cervical adenitis, the glands on one side being as large as a hen's egg, and the child was very anemic-looking, but no physician had seen her. Should I have ordered the house and the child's person and clothing to be disinfected? Should I have placarded the house till this was done?

Answer.—If scarlet fever in neighborhood, this was probably a case of it. Best to have had house and child disinfected. No need to placard after six weeks.

10. Visited a house in which I found a young lady who had been sick three weeks previously. Had had slight rash, sore throat and vomiting. Slight desquamation on face, especially forehead at roots of hair. I placarded house, but allowed girl's father to continue gathering cream upon the mother agreeing to keep girl isolated. Should I have done so? No physician had been called.

Answer.—This is a case of scarlet fever. Should have stopped the father collecting cream. See Regulation 4.

11. Have heard that these people are going out in spite of quarantine, but no complaint has been sent in, and they live ten miles from here. Should I go and investigate?

Answer.—If the M. O. H. has quarantined, he should be satisfied that his orders are carried out.

12. Does certificate have to be signed before the M. O. H. can collect his expenses from the municipality?

Answer.—The Member's Ticket will be sufficient voucher. If any difficulty, write the Chief Officer of Health.

13. We are supplied with a very inefficient sanitary inspector, who will not follow instructions nor try to make himself efficient. The City Council have been notified of the condition and asked to supply a competent inspector, which so far they have failed to do. What do you advise the local Board of Health to do to remedy the condition?

Answer.—The Local Board of Health may employ and pay any sanitary inspector they wish. Payment may be made under authority of Section 22 of the Public Health Act.

14. Description of suitable box for manure at stables, as to size, etc.

Answer.—Size about 4 feet by 4 feet by 4 feet, with screen top. As flies require 14 days in which to breed and grow to full size, there will be no necessity for screening if manure is removed and spread on fields once a week.

15. We find that some householders put old tins and broken china, etc., in privy vault, and this creates an objection on part of farmers to receive the night soil or give dumping ground. How may this be prevented?

Answer.—Educate and prohibit by by-law. The greater portion of household garbage should be dried as well as possible and burned in the stove or furnace.

16. Appointment of M. O. H.

This officer should be appointed by by-law at a stated salary, which the Act says must be a reasonable salary. Sections 37-39. He cannot be dismissed except for cause, and with the approval of the Provincial Board.

By a decision of Mr. Justice Lennox, the M. O. H. of 1912, unless appointed by the Council of 1913, does not retain office, but the properly appointed officer of 1913 continues in office subject to terms of Section 37.

17. Cost of disinfection is borne by the Local Board of Health (Section 29), except as covered by Section 62, 1 and 2.

Expenses of persons with communicable disease:

This is supplied in the first instance by the M. O. H. or Local Board of Health, but the corporation of the municipality may recover from the person the amount spent in providing medicine, nurses and other assistance and necessities for him, but not for the expenditure incurred in providing a separate house or in otherwise isolating him. Section 58, (1) and (2).

18. In a garnishee action now pending between the Local Board of Health, plaintiff, and one Reid, a lumberman, defendant, where payment is demanded by the local Board for cleaning up the nuisance perpetrated by Reid in his lumber camp, counsel for defendant claims that in such an action the Local Board of Health *non esse*; that action must be taken by the municipality. Kindly rule.

Answer.—Council must take action. Section 58, (1) and (2).

19. Is it advisable to compel all farmers in back country townships to clean out wells annually, where the townships are not very wealthy and find it hard to carry out the Act?

Answer.—Advise that all wells be cleaned out. Don't attempt too arbitrary measures. Educate the public and they will soon see the benefit.

THERAPEUTIC NOTES

Common Colds.—J. W. Fisher (*Boston Med. and Surg. Jour.*) believes common colds are due to infection, and are, therefore, contagious. Reasonable isolation should be carried out in each case, and further prevention secured through preventive inoculation. Vaccine treatment will abort or shorten their course. This treatment by vaccines of acute and chronic inflammation of the respiratory tract, Fisher regards as specific.

Furuncle.—K. Kerrild (*Ugeskrift for Laeger*) applies pressure with an invisible hairpin and thus squeezes out the contents centrifugally, which pressure works from below upwards. Other measures usually drive the contents in. He has applied this in fifty cases and in all the pustule healed at once and no new ones developed.

High Pressure.—David Riesman (*Am. Jour. Med. Sciences*) quoting his own experience, maintains a pressure of over 145 is abnormal, other things being equal, and that at the age of fifty years, a pressure over 150 is pathologic. In treating high pressure it is safe practice to endeavor to reduce the blood pressure when excessively high to a point where symptoms cease. It should be kept there if possible. The patient will rest better if he eats a small evening meal. As for drugs, the nitrites are valuable. If nitroglycerin fails, sodium nitrite, $\frac{1}{2}$ to 2 or even 3 grains may be useful. This will only relieve symptoms. They should be continued only when the pressure is rising. Reduction in the quantity of the diet is of importance.

Congenital Flat Foot.—Legg (*Am. Jour. Orth. Surg.*), in operating on congenital flat foot, transplants the tendon of the anterior tibial muscle to the periosteum of the under surface of the scaphoid. He employs a dry dressing, and puts the foot up in a slightly over-corrected position, from the toes to the knee, with plaster. It is kept in plaster from nine to ten weeks, when walking is then allowed, the arch being supported two months longer by a felt pad. When the plaster is removed, massage without manipulation, and hot and cold showers are ordered. The best results are obtained when the operation is performed about the fourth or fifth year.

Ozena.—E. J. Moure (*Berl. Klin. Woch.*) applies the nose douche with rhythmic jets as the patient breathes, and the main elements for success are regularity and extreme care. Expulsion of the crusts may be facilitated by vibration massage of the mucous membrane, spraying the nose with a five or twenty per cent. silver nitrate solution. Irregularity of the passage should be corrected with paraffin injections. General treatment should be carried out persistently.

Tobacco Amblyopia.—De Waele (*Arch. d'Oph.*) treats tobacco amblyopia with .2 gram solutions of lecithine suspended in normal saline solution. There is no local reaction and the pain only lasts a few hours.

Asthma.—Straübli (*Mun. Med. Woch.*) recommends the use as an inhalation of adrenalin. He has specially devised an apparatus for the inhalations. In severe attacks he advises 20 drops of 1-1000 adrenalin and 2 drops of a solution of atropin and cocaine (sulphate of atropin, 0.1; hydrochlorate of cocaine, 0.25; distilled water, 10.0) to be placed in the apparatus and inhaled.

Uncontrollable Vomiting in Infants.—Variot, Lavialle and Rouscelot (*Bull. de la Soc. de Péd.*), in this report, add fifteen new cases to the twenty they previously reported, thus confirming their treatment of the most tenacious and inveterate vomiting in young infants by sweetened condensed or ordinary milk. There is a prompt sedative action. To the heated milk, about 10 per cent. sugar is added, which sweetens it about the same as condensed milk. This renders the casein more like human milk; and there is some chemical action on the albuminoids from the large amount of sugar under the action of heat.

Acute Colitis in Young Children.—V. Hatinel and P. Nobécourt (*Arch. de Med. des Enfants*) do not regard infection as the cause of acute colitis, but the result. The aim, in treatment, should be to clean out the stomach and intestines and modify

the mucosa. With an acetone odor of the breath, constipation and fetid stools, warning of acute colitis, nothing should be given the child but water. Stomach and intestines should be cleared by lavage, and sodium sulphate, from five to fifteen grammes the first day, and then one to five daily for a week. Castor oil, if needed. If abdominal pain, relieve by moist heat or ice-bag, or small enema of one to two tablespoonfuls of water, with one to three drops of laudanum. For modifying the mucosa, small hot enemata of silver nitrate at 0.2 per thousand, or, if ipecac, 1 to 2 gm. of powdered ipecac, infused in 200 gm. of boiling water. Or ipecac can be given by the mouth, from 0.2 to 1 gm., infused in 100 or 200 gm. of sweetened water. Give a teaspoonful of this infusion every two hours until the stools grow more normal. If much vomiting, only an occasional sip of ice water should be allowed. The restriction to water alone is maintained from two to six days or more, when feeding is then commenced cautiously, with rice or barley water, or a vegetable bouillon. Then tapioca, soft mashed potato or chicken broth free from fat. Milk should be resumed very cautiously, and then it is better to give it cooked in gruel. In severe cases, buttermilk may be preferable. Eggs and meat should not be allowed until recovery is complete. Vichy water is good in convalescence. Epinephrin may be useful.

Double Inguinal Hernia.—E. S. Judd (*Old Dom. Jour. of Med. and Surg.*) employs a single transverse incision from 8 to 12 cm. long a little longer in fleshy patients—beginning midway between the internal and external abdominal rings, across to a similar point on the opposite side, and so connecting the two inguinal canals. This incision goes down through the subcutaneous fat, down to the aponeurosis of the external muscle. He then dissects the fat away from around the external abdominal ring for a short distance, and then, by retracting the skin and subcutaneous tissues at either end of the incision, the entire inguinal canal of that side is exposed. The hernia on this side is repaired, and then retraction is made on the other side, and that repaired also. The superficial tissues are then sutured loosely with catgut, and the skin closed by a subcutaneous catgut suture or a through-and-through horsehair stitch. In this operation the bleeding is very slight, and it is especially valuable where a truss has been worn, and the region of pressure hardened, blistered, or the skin broken.

Reviews

Practical Treatment, Vol III. Edited by JOHN H. MUSSER, M.D., and A. O. J. KELLY, M.D. Octavo, 1095 pages. Illustrated. Philadelphia and London: W. B. Saunders & Co. Per vol. \$6.00.

This is the third and last volume of a most useful system on treatment. Like the preceding volumes a good deal of space is given to the consideration of the characteristics of a particular disorder before describing its therapeutics. Indeed so excellently is this done in most cases, that we find ourselves possessed of a system of medicine in which treatment occupies the most important place rather than diagnosis.

The first 100 pages consider certain constitutional diseases. Dr. Janeway contributes a splendid article on diabetes mellitus. The principles of treatment are clearly set down and it is shown how the actual details of therapeutic practice can and should be guided by them. Excellent diet tables are given.

Two other splendid articles are on chronic articular rheumatism, by Thos. B. Fletcher, M.B., and its surgical treatment by Joel E. Goldthwait, M.D.

Diseases of the respiratory system and their treatment are discussed by capable writers. Such a comparatively recent method of treatment of certain cases of pulmonary tuberculosis as artificial pneumothorax is clearly set down, although but slight reference is made to the vaccine-therapy in various bronchial disorders.

One of the most interesting articles in the excellent section devoted to diseases of the digestive system is that on visceroptosis by John H. Gibson, M.D. This is a most complete and instructive paper. The remainder of the volume, some 250 pages, considers medical and surgical treatment of diseases of the central nervous system and the medical problems of the treatment of mental diseases.

Notwithstanding the fact that there is only one non-American contributor to this volume, Professor Moynihan, a most useful work has been produced. Indeed it maintains the high standard of the preceding two volumes and completes one of the most satisfying systems of treatment published in recent years.

G. W. R.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.	Psychiatry: Ernest Jones, W. C. Herrman.
Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.	Ophthalmology: D. N. Maclellan, W. H. Lowry.
Obstetrics: Arthur C. Hendrick.	Rhinology, Laryngology and Otol-ogy: Geoffrey Boyd, Gilbert Royce.
Pathology and Public Health: John A. Amyot, Chas. J. C. O. Hastings, O. R. Mabee, Geo. Nasmyth.	Gynecology: F. W. Marlow, W. B. Hendry.
Physiologic Therapeutics: J. Harvey Todd.	Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.
	Anesthetics: Samuel Johnston

VOL. XLI.

TORONTO, AUGUST, 1913.

No. 2

COMMENT FROM MONTH TO MONTH

The Growth of the Public Health Movement is most astonishing. In two decades more has been done in investigating the cause of disease and in preventing and fighting disease than, it is not too much to say, has been done in the world's history. Royalty, governments, municipalities, special societies, universities, religious institutions, are everywhere vying with one another with tremendous force and tireless energy to lay the all-conquering enemy of mankind. It is a conflict waged by mankind on the one hand against its most formidable adversary, disease.

It has taken long years and patient but persistent effort to bring home to the intelligence of the people that much human suffering and much sacrifice of human life was preventable. In this illumination, the medical profession has done the pioneer work, as they have considered that the prevention of disease is as much part of their practice as the treatment of patients suffering from disease.

More and more each year practitioners wholly forsake the latter half of their duty to become altogether employed in the former, and so become servants of the people. This points steadily in the direction of state medicine.

One hears much about the awakening of the oriental peoples; but western civilization, in health matters, appears to be consistently progressing, or is it retrogressing, to the position of the Chinese where the doctor is paid to keep his patients well.

What will two more decades do?

Dr. Friedmann has Returned to Germany. He did not establish his "cure" for tuberculosis in America. It cannot be said his exploitations were circumvented by the medical profession. Indeed, that profession kept an open mind, though enthusiasm got the better of the common and scientific sense of some members thereof. The medical press, both in the United States and Canada, was sympathetic, but skeptical. As a body it opposed no obstacles to the establishment of success.

If any one is to feel chagrined it must be the lay press. Medical publishers are not unfamiliar with the methods of exploiters who strive to gain access to their pages free of cost. The free advertising Dr. Friedmann received at the hands of the public press must cause some of them to tear their hair and gnash their teeth in impotent rage. The omniscient wisdom of these moulders of public thought and opinion was subverted by a young, unsophisticated professional man from a foreign country. It is an old saying, "the cobbler should stick to his last." Probably it will be allowed, after the flamboyant commercialism, that the medical profession is the best court to pronounce first upon the efficacy of all "cures."

But what shall be said of the shameful dragging of hundreds and thousands from their homes in fond, if doubtful hopes, of receiving treatment and subsequent "cure" of their malady? It is a tragic story that will never be written.

Pernicious Anemia.—C. E. Nammaek (*Med. Rec.*) recalls that the consensus of opinion at the last meeting of the American Gastro-Enterological Association seemed to assign the underlying basis of pernicious anemia to some toxin generated in the gastrointestinal tract as a result of deficiency of hydrochloric acid in the stomach. With the discovery of salvarsan many recent cases have been injected or infused with this arsenical compound, especially where a previous history of syphilis could be elicited. Friedlander reports one case where the red blood count rapidly rose from 887,000 to 3,200,000. Byrom Bramwell has also reported good results in two cases. The author states that his experience in the use of salvarsan is positively contraindicated in pernicious anemia in a man in the fifth decade who confesses to luetic infection in early life. E. F. Maynard is another author who has put on record a case of failure to benefit by salvarsan, in order that the growing view that this drug might be a specific in pernicious anemia might be dispelled.

Editorial Notes

HOSPITAL FOR THE INSANE AT WHITBY, ONTARIO

The Provincial Secretary's Department has issued a report on the plans, methods of construction and organization of the new Hospital for the Insane at Whitby. The land at Whitby for this purpose comprises about 640 acres; and the main grouping of the buildings will have a south-eastern exposure overlooking Lake Ontario. The development of the grounds are to be park-like, and everything will be done to eliminate everything suggestive of detention. When completed the buildings will accommodate 1,500 patients, and so constructed and organized that units of 500 each may be easily added at any time. The hospital centre is to consist of four hospital buildings, two with initial kitchen and dining rooms. The two others will each accommodate 63 patients and will be used for admission and observation purposes. There will be two convalescent cottages accommodating 35 patients each and two buildings for acute cases, each accommodating 104 patients. The cottage centres will consist of two groups, accommodating 52 patients in each cottage, for each of which there will be provided an infirmary. Thus it will be seen that the institution will be divided into two distinct centres—hospital and cottage centres. The best ideas of psychiatry in the treatment of patients will be carried out in the arrangement of continuous baths, hydro-therapeutic measures, electro-therapy, hot air baths, massage, special rest rooms, hygienic diet, surgery, dentistry, ophthalmology, etc. There will be also isolation hospitals, facilities for research work, laboratories, and lecture rooms, officers' quarters, nurses' homes. For the patients, there will be a church, amusement hall for concerts and dancing, skating and curling rinks, bowling alleys, gymnasium, etc. As far as practicable all the work in connection with the building operations will be carried on by prison labor. There is a temporary camp of 100 prisoners with guards established. No effort will be spared to make this new hospital for the insane one of the most complete of its kind in existence.

CHAIR OF PHTHISIO THERAPY AT LAVAL

(L'Union Medicale.)

Recently a citizen of this city, who occupies a very high position in commercial life, Mr. J. Auguste Richard, President of Fashion-Craft Mfrs., Ltd., intimated to Laval University that he would give



MR. J. A. RICHARD

Whose Generous Offer to Found a Chair of Phthisiotherapy at Laval University has been Accepted

them \$10,000 with the object of founding a chair of phthisiotherapy. The university unanimously accepted this magnificent gift with thanks, and Dr. J. E. Dube, of Montreal, who for many years has made the study of tuberculosis and tubercular symptoms his object in life, was duly elected as the incumbent. It is a great pleasure to notice this good and generous deed on the part of Mr. Richard, for it shows the era has come when our wealthy citizens and enlightened ones are willing voluntarily to give valuable financial and moral support to works of higher teaching and popular education for the welfare of their fellowmen. Thanks to Mr. Richard's generosity and broadmindedness, whose wise thought and supple mind realized the importance and the necessity of a strong fight against the dire enemy tuberculosis, a new start has been taken by which its rapid growth may be checked and its terrible consequences warded off from many otherwise innocent victims, who, through lack of knowledge or proper care, would be ravaged by this dread disease. The thanks of our country are and should be unanimously tendered to such men as this, who wisely and willingly endeavor to do their duty in this life, and withhold nothing that is in their power to aid in the building up, morally, mentally and physically, those who go side by side through the battle of life with them towards the common goal. The donator in this case is known to many as a philanthropist of the highest moral standing, his name being connected with many charitable and beneficial organizations throughout Canada. Whilst in Montreal, as President of the Bruchesi Institute and Governor of Notre Dame Hospital, etc., he is known as an active, energetic co-operator, whose level-headed knowledge of business affairs renders his advice of the greatest value to his fellow-workers for the welfare of humanity.

There is no doubt that a public dispensary such as that of the Institute Bruchesi fills a very important want, as it is there that the doctor comes in contact with the sick, that he teaches them and gives them intelligent and assiduous care, and draws their attention to the best means to prevent contagion and the spreading of the disease, but this was not sufficient. It was necessary to place the seal of "officialism" on the teaching "against tuberculosis" so that it would become perpetual and give a real start to the fight which is being pursued everywhere else, and which has already provoked here such beautiful devotion and such noble aspirations.

The foundation of this new chair in the university will group every year the students in medicine and will instruct them not only from the scientific point of view, but from the social point of view. It will indicate the causes, the evolution, the economical aspects and

social ones of this disease. It will show them the best means to take to fight against it in all its phases, and lastly it will form the mentality of these young intelligences and teach them the catechism of the duties and responsibilities of the modern medical man in face of the dangers which menace the family and the race. These young doctors will in their turn go to the different centres of the country, where they will continue the healthy propaganda of popular education, the results of which have been so encouraging elsewhere. To the governments and public authorities it will trace as it goes along a road to follow, the laws to formulate against alcoholism, which is one of the chief causes of tuberculosis, against the unhealthy dwellings, the hovels where so many victims are born and die, against infected milk, which communicates tuberculosis germs to little children and predisposes them to succumb to the least shock.

OPENING OF THE NEW TORONTO GENERAL HOSPITAL

On the afternoon of the third of June, the new Toronto General Hospital was formally opened with interesting ceremonies by His Honour the Lieutenant-Governor, Sir John Gibson. Mr. J. W. Flavelle, Chairman of the Board of Trustees, presided.

Mr. Flavelle gave an historic account of the Toronto General Hospital from the year 1818 and then referred to the financial benefactions which made the new institution possible. The out-patient building costing \$100,000 was contributed by Mr. Cawthra Mullock, a similar sum by the Massey estate; Mr. J. C. Eaton, the surgical wing, \$300,000, and recently an additional contribution of \$50,000; an anonymous giver subscribed \$300,000; the Misses Shields, \$140,000 for the emergency hospital; the Ontario Government, \$300,000 for the University for the pathological building; besides many considerable contributions from other private citizens; the city originally \$200,000; recently a further grant of \$200,000.

In the out-patient building it will be possible to treat upwards of six hundred patients per day. The west wing is known as the medical building; the east, the surgical. It has 120 beds in six wards and a large hall for demonstration purposes. The surgical wing has accommodation for 120 patients in six wards. There are the most complete and modern operating suites. In the administration building there are thirty-six beds for semi-public patients on the main floor; on the second public wards with 44 beds for eye, ear, nose and throat; third floor, forty beds for gynecological cases; fourth, internes quarters, but will be used temporarily for private

patients until the private patient department is completed in the Fall. The obstetrical building will be completed about the same time. The nurses' residence is in the rear of the surgical wing. The arrangement of the buildings on four streets provides for lawns in the centre of the hospital.

The hospital will have accommodation for 670 patients and is the largest of its kind in Canada, and only equalled by one or two in the United States. Of Canadian hospitals, the Royal Victoria, Montreal, has accommodation for 200 patients or thereabouts; Montreal General, 400, about the same number as the old General in Toronto.

On receiving the hospital for the people of the Province, Sir James Whitney made a most important pronouncement, namely, that a Royal Commission would shortly issue on medical education and medical practice in the Province, the object being to secure information on all subjects pertaining to the practice of medicine to define the term and to base legislation thereon.

The hospital is situated on nine acres of land and its boundaries are College, upon which it faces, University, Elizabeth and Christopher Streets. Everything known to modern, scientific hospital equipment has been secured.

To the Chairman of the Board of Trustees, Mr. J. W. Flavelle, is due, more than to any other single individual, the thanks of the community for having carried this enterprise to a successful completion.

QUEEN'S UNIVERSITY MEDICAL FACULTY

By the adoption of an amended constitution the Medical Department of Queen's University, Kingston, Ontario, will hereafter be governed by the Board of Trustees of that institution. For twenty-one years the Medical Faculty has administered its financial affairs, although in academic union with the university. In 1892, when the Royal College of Physicians and Surgeons became a Faculty of the University, there were ten professors, one lecturer, one demonstrator and two arts professors, who taught the medical students. To-day the medical staff consists of fourteen professors, four associate professors in two faculties, five assistant professors, six lecturers and eight clinical assistants and demonstrators, thirty-seven in all. During these twenty-one years, 750 students have been graduated in medicine. The medical registration in the fifty-ninth session just completed numbered 251, having been two more than in 1911-12.

LOCATION OF QUEEN'S 1913 MEN.

Drs. E. A. Boak and W. W. Kennedy, General Hospital, Vancouver.

Drs. A. B. Simes and K. C. Dean, St. Boniface Hospital, Man.

Dr. A. W. Johnston, City Hospital, Milwaukee.

Dr. J. Norman, Western Hospital, Toronto.

Drs. A. B. Richardson, W. M. MacKay and R. T. Kerr, General Hospital, Kingston.

Dr. E. L. Stone, Hotel Dieu, Kingston.

Dr. L. J. Nacry, St. Mary's Hospital, Rochester, Minn.

Dr. J. L. Tower, Hospital of the Good Shepherd, Syracuse, N.Y.

Drs. J. A. Dobbie and R. F. Kelso, Western Hospital, Montreal.

Drs. H. Mackinnon and J. F. MacIvor, Jeffrey Hall Hospital, Quebec.

Drs. M. T. Smith and F. L. Leacock, St. John's Hospital, Brooklyn, N.Y.

Dr. J. C. Smith, Seton Hospital, New York.

Dr. L. E. Williams, Rockwood Hospital for the Insane, Kingston.

Dr. A. B. Earl, Hospital for Insane, Mimico.

Dr. V. T. Lawler, American Hospital, Cleveland, Ohio.

Dr. J. C. Dickson, Swedish Hospital, Brooklyn, N.Y.

Dr. W. R. Jaffrey, bacteriologist, Ontario Government Water Commission.

Drs. D. J. Miller, V. Blakslee and F. L. Leacock, surgeons, G. T. P., British Columbia.

THE PUBLIC HEALTH ACT OF CANADA

Dr. John W. S. McCullough, Chief Officer of Health of Ontario gave the following brief synopsis of the Ontario Health Act at the meeting of the Canadian Medical Association, London, June 25th, 1913.

The most important new features of the Ontario Act revised last year are:

(1) The provision whereby the province is divided into districts each with a trained medical officer. There are seven of these. Each officer gives all his time to sanitary work within his district.

(2) The reduction in the numbers of members of the local boards, there being five members for places of 4,000 population and upwards, and three members for places of 4,000 population and upwards, and three members for places of smaller population, in-

cluding the townships. The Medical Officer of Health is a member of the Board and its executive officer.

(3) The tenure of office of the Medical Officer of Health is made permanent. This official cannot be dismissed except for cause and with the consent of the Provincial Board. He must be paid a reasonable salary. Provision is made whereby the municipality pays his expense for attendance at the Annual Conference of Health Officers. This year about 300 were in attendance.

(4) The medical and surgical attendance upon indigents cannot in future be saddled upon the practitioners of a community. The Council is required to provide for this.

(5) The period given to report communicable disease has been shortened to 12 hours instead of 24. Measles and tuberculosis are made placardable diseases.

(6) Isolation hospitals are placed directly under the control of local Boards of Health and arbitration is provided in case of dispute as to their location outside the municipality.

(7) The onus of placarding premises for communicable disease is placed directly upon the Medical Officer of Health.

(8) Under the regulations the Medical Officer of Health has power to commit a tuberculosis patient in a hospital or sanitarium under certain circumstances.

(9) Power is given to a municipality to regulate and inspect its meat supply.

(10) Perhaps as important a part of the Act as any is that relating to the establishment of water works and sewerage systems. Neither of these may be begun without the approval of the Provincial Board, and under certain circumstances the Board has power to order a municipality to establish a water supply or sewage disposal system.

(11) For the first time in the history of the Province, a Sanitary Engineer has been appointed under the Provincial Board.

The reports of communicable diseases and births and deaths made by the medical profession are very incomplete. The importance of this question cannot be denied. Some medical men claim they should be paid a fee for such reports. The Ontario Health Officers Association recently passed a resolution asking the Government to pass legislation requiring a fee of 50 cents for each report of a communicable disease, a birth or a death. This question should, in my opinion, be freely discussed here. All I have to say about it is this—that the members of the profession will, in the future, be required to obey the law. So, if they believe themselves entitled to a fee for such reports, they will get it only by

making their influence felt in the same manner as other organizations do. If they follow their usual business tactics and wait for Providence to help them they will get no more recognition than at present. These remarks are made with a view to provoking discussion.

DRINKING AND SMOKING IN CANADA

In the year 1912 Canadians smoked 975,325,501 cigarettes, the number being in excess of 1911 by nearly 200,000,000. The consumption of tobacco and alcoholic liquors in 1912 shows an increase all round over 1911. The per capita averages are given by the Department of Inland Revenue as follows: Spirits, 1912, 1.112 gals.; 1911, 1.030 gals.; beer, 1912, 7.005 gals.; 1911, 6.598 gals.; wine, 1912, .131 gals.; 1911, .114 gals.; tobacco, 1912, 3.818 lbs.; 1911, 3.679 lbs.

The figures for tobacco include cigarettes.

ONTARIO MEDICAL COMMISSION

At the opening of the new Toronto General Hospital on the afternoon of the 19th of June, Sir James Whitney, the Prime Minister of the Province, took the opportunity of making the most important announcement that his government had decided to appoint a Royal Commission to investigate the whole subject of medical education and the practice of medicine in Ontario. Sir James stated that the object of this Commission would be to acquire information which would enable the government to base legislation thereon so as to regulate and control all in the interests of the public in the province. This investigation is to include the Ontario Medical Act, the College of Physicians and Surgeons and their governing body, the Ontario Medical Council, the medical faculties of all universities, the training schools of hospitals, dental schools, the practice of osteopathy, Christian Science, and all other healing classes or sects. Necessarily this investigation will be comprehensive and searching in its character, so as to enable the government to elaborate and construct legislation in the interests of the people, which will be the prime and essential end in view.

MEETING OF THE CANADIAN MEDICAL ASSOCIATION IN LONDON

The Forty-Sixth Annual Meeting of the Canadian Medical Association took place in London beginning on June 24th and ending on June 27th. On the whole the gathering was a success, although perhaps not an unqualified success. From the point of view of the quality of the papers read and from a social standpoint all went merry as a marriage bell, but otherwise there were drawbacks. The attendance was somewhat disappointing, and as pointed out by Dr. H. A. McCallum, in his presidential address there seems to be a certain amount of lethargy among the members of the medical profession in Canada in that they fail to support the association with the enthusiasm which is needed to render the proceedings of such a body successful.

The place of meeting was all that could be desired, London is so beautifully umbrageous that it is eminently fitted for sojourn in weather so hot as was that which prevailed throughout the meeting. The inhabitants and medical profession were bountifully hospitable, and in consequence the visit was in a high degree enjoyable.

Perhaps the distinguishing feature of the meeting was the success of the public health section. Under the extremely able, albeit firm guidance of Dr. Helen MacMurchy, the programme mapped out was carried through with scarcely a hitch. However, before dealing with the papers and discussions of this section in any detail it will be in place to sketch as fully as possible in the comparatively small space allowed by the editor, the general proceedings of the meeting. The first general session was held in the evening of June 24th in the large hall of the Masonic Temple on Queen's Avenue. The building was in many respects well adapted for a large meeting, being new, commodious and well arranged. Unfortunately the large hall is ill-suited to public speaking, its acoustic properties being very poor.

The Mayor of London welcomed the visitors in a hearty manner, and Dr. White, ex-Mayor of St. Johns, N.B., responded on behalf of the association in felicitous terms. The executive committee was then selected as follows: Dr. F. P. Drake, London; Dr. Mackid, Calgary; Dr. Primrose, Toronto; Dr. Small, Ottawa; Dr. Adami, Montreal; Dr. Reeve, Toronto; Dr. Halpenny, Winnipeg; Dr. McKechnie, Vancouver; Dr. Brett, Banff; Dr. McNeil, St. Johns; Dr. Maider, Halifax; Dr. Park, Whitelaw, and F. N. G. Starr, Toronto.

Dr. J. Alexander Hutchinson, Montreal, delivered the address in surgery, taking as his subject, "Fractures and Their Treat-

ment." He reviewed at some length the various methods of treatment of fractures, illustrating his text with examples drawn from his own practice. The most interesting point made in this address was the suggestion that the association seek to have the status of medical men defined by law with regard to suits for malpractice. Dr. Hutcheson pointed out that since the introduction of radiography into medicine and surgery skiagraphs of fractures were made use of frequently in courts of law to the prejudice of the profession. He declared that no layman nor lawyer is competent to tell whether or not the photograph is a true picture of conditions. They do not know the pathological aspect of the case. Experts alone should decide. We should be protected from such practices. The question of medical ethics is also involved, for he did not see how it is that any physician can sell radiographs to injure a brother physician.

Dr. T. S. Cullen, of Johns Hopkins University, Baltimore, gave the address in gynecology. This address was a strong plea for the institution in Canada of methods similar to those initiated recently in the United States for the purpose of teaching the general public how to detect early symptoms of cancer. Dr. Cullen gave an interesting account of the popular campaign against cancer in the United States, and showed how well the newspapers and magazines had co-operated in the scheme and how widely knowledge of the disease was being diffused. As a result of the popular propaganda physicians had reported that large numbers had come to them for treatment with a very satisfactory outcome. Dr. Cullen emphasized a point of extreme importance that good pathologists were required in every hospital as the great surgeon of the future would also be a great pathologist.

The first incident of note which occurred at the meeting on the evening of Tuesday, June 25th, was the reading of the report of the Canadian Committee, authorized to investigate into the value of the so-called Friedmann cure for tuberculosis. Of course, interest in this matter has been greatly discounted by the upshot of the affair in the United States, and in addition both the medical profession and the general public have been wearied beyond description by the long and conflicting accounts that daily appeared in the lay press. The Canadian report then may be termed the last nail in the coffin, at any rate on this side of the water. Dr. J. George Adami briefly sketched the history of events leading up to the report, and then Dr. George Porter read the report. The following were the conclusions: 1. The inoculations have neither constantly nor frequently been followed by marked change in the clinical course of

the disease. 2. The cure or progress towards cure claimed by Dr. Friedmann for the treatment has not constantly nor even frequently taken place in the time during which these cases have been under observation. 3. That upon investigation the committee finds that the results have been disappointing, and that the claims made for his remedy by Dr. Friedmann have not been proved, and that nothing has been found to justify any confidence in the remedy. All the members of the committee signed this report with the exception of Dr. Chas. Hodgetts, who was said to be averse from making any report. In explanation of his attitude Dr. Hodgetts is reported in a London daily paper to have stated that in his opinion Dr. Friedmann had so discredited himself by not keeping his word to the effect that he would inform the members of the committee of the composition of his remedy, that he, Dr. Hodgetts, thought a report would be worthless. Although not the exact words of Dr. Hodgetts as given in the paper, the above embody the substance.

Dr. McCallum, the President, read his address, which was of a fighting nature, that is to say, in it he criticized severely many defects which according to him, are inherent in the Canadian medical profession at the present time. Dr. McCallum pleaded earnestly for a more active interest on the part of the profession, in the work of the association. Funds were especially needed to rescue the profession from the exploitation by and commercial enterprise of certain drug houses. The chemical industry of Germany was carefully organized, and it was difficult to know what to accept and what to reject. Trained and scientific censors were needed to give advice and to assist in shaping legislation to prevent the sale of nostrums. Dr. McCallum praised the report of the Carnegie Foundation, but thought that its compilers had made an error in so highly praising the German methods of medical teaching and training. In his judgment the British methods were the best in that they produced the most satisfactory results. The British schools of medicine turned out the best practical men which, after all, was the object to be aimed at. At the present time the curriculum of the medical student was overburdened with subjects and be he as able and receptive as possible, it was not reasonable to expect that he could digest and assimilate such a variety of material.

Dr. Llewellys F. Barker, Professor of Medicine at Johns Hopkins University, Baltimore, gave the address in medicine. This dealt with the nerve supply of the internal secretory organs and the smooth muscles and was an able and scholarly exposition of a matter concerning which little is known. Dr. Barker did not read

a paper, but gave a charmingly lucid lecture copiously illustrated on the screen. In spite of its interesting character it was impossible to take notes, as the lights were turned out. Dr. Barker, however, said that he would send a paper to the association and no doubt those who see the association journal will have the opportunity of reading the account of an engrossing and to some extent an original subject.

Dr. Barker, who is a remarkably fascinating lecturer and personality, gave the visitors to the meeting the chance of hearing him at his best in the public health section. He gave a short address on mental hygiene, a question in which he is greatly interested, and of the popular movement in this direction for which he was the prime mover in the United States. By the term mental hygiene he explained that was meant the improvement and conservation of mental health to make men think better, act better, and become better than now. The imbecile, the criminal, the prostitute, the insane, were so because they had to be. The majority had been born with a bad brain, and acted as their brain directed, while others, although born with a good brain, because of some deleterious act, acted wrongly or criminally. Dr. Barker deprecated the idea that there were any grounds for antagonism between the views of the eugenists and the enthenists. Eugenists believe largely in the influence of heredity and the enthenists in that of environment. Both schools are of equal importance, and there should be no quarrel.

Dr. Barker sketched the campaign now going on in the United States to bring before the public, the medical profession and the law givers the importance of mental hygiene, and he suggested that it might be to the benefit of the public if judges were to make a study and practice of mental hygiene.

The discussions in the Public Health Section relating to medical inspection of school children and to venereal diseases were of immense importance and deserving of more consideration than can be given them in this short account. Suffice it to say, that for the proper carrying out of measures calculated to provide efficient medical inspection of schools and to control the spread or possibly to stamp out venereal diseases, it appeared to be the general opinion of those present, that federal domination would be the true solution of the problem. In provincial and municipal domination, politics were bound to influence and hinder. Dr. Halpenny was especially insistent on the view of the situation.

A committee was formed to report on both of these matters. The report on venereal diseases was handed in on June 26 by Professor

Harris, of Winnipeg, in which a recommendation was passed to the effect that Provincial Boards of Health be asked to have venereal diseases classed as reportable infectious diseases.

Dr. Helen MacMurchy on the evening of June 25 gave an illustrated popular lecture in Wesley Hall on "National Health." Dr. MacMurchy made the somewhat dry bones of sanitary science alive to the man in the street and among good things said that at the present time there is high standard of public health in Canada.

Dr. H. W. Hill, Director of the London Institute of Public Health, and who presided over the meeting at which Dr. MacMurchy took the chief part, was prominent throughout the entire meeting and did much to bring about the great success of the deliberations of the Public Health Section.

The symposiums on diseases of the stomach, medical and surgical aspects, introduced by Dr. Alexander McPhedran, and on diseases of the thyroid, medical and surgical aspects, introduced by Dr. A. J. Ochsner, Chicago, were features of the meeting.

On June 27, Dr. Frank Billings, of Chicago, conducted a medical clinic, and in the afternoon of the same day Dr. John B. Murphy, of Chicago, the wizard of the knife, gave a clinical lecture. It goes without saying that both of these lectures were worthy of the reputations of the men who gave them.

Only the questions of paramount concern have been touched upon in the necessarily brief description, and particular stress has been laid on the proceedings relating to public health matters, because preventive medicine is of such supreme importance and because the meeting just ended in London was the first that had a section devoted to public health. In all respects, the papers in every section attained a high standard, and as said before no fault could be found with the quality of the papers.

Among matters of interest that occurred during the meeting was the presentation of an illuminated address to Dr. Roddick and the conferring upon him the honorary life presidency of the association for the great service he has performed in bringing about medical reciprocity in the Dominion. Sir James Grant was made an honorary life member of the association.

Dr. Adam Wright introduced a resolution moving that the Canadian Medical Association and the Ontario Medical Association be separated. This motion was referred to next meeting.

St. Johns, N.B., was selected as the next place of meeting and Dr. Murray MacLaren of that city was chosen as next President.

TREATMENT OF BURNS BY THE APPLICATION OF ALCOHOL

In the *Australian Medical Journal* of Jan. 4th, Dr. E. T. C. Milligan has described a method of treating burns which he has found more satisfactory than the current methods. In burns of the second, third and fourth degree, cleansing with antiseptic lotions is usually recommended. The moisture causes the sloughs to become septic—in other words, converts dry into moist gangrene. Frequent and painful dressings are then necessary. Dr. Milligan excludes water from the treatment, and applies alcohol. He thus prevents moist gangrene and inflammation and saves much suffering. A child, instead of spending several months in hospital, can soon have the burn grafted and run about. The details of the method are as follows: If the patient is in such a state of shock that he cannot stand an anesthetic, a watery saturated solution of picric acid is applied on lint and protective is put over this to prevent evaporation. On the next day the protective is lifted and more of the solution is poured over the lint, which is not changed. On the third day the patient is either obviously going to die or can stand an anesthetic. If the picric acid be continued any longer the burn will become offensive. Dr. Milligan has not found the picric acid treatment of burns satisfactory, and simply uses it in the absence of anything better for a patient in a condition of shock. Moreover, the acid is absorbed and may cause toxic symptoms. If the patient is in a condition to allow the administration of an anesthetic he is given chloroform, and the burns are cleansed with sterile gauze wrung out of 70 per cent. alcohol. The whole surface of the burn and the surrounding skin is rubbed vigorously. Blisters are rubbed off with all dead tissue. No blister is pricked, nor is the dead skin allowed to remain to keep fluid pent up only to be infected by the organisms of the skin. Dead tissue is more effectively and easily rubbed off than removed with scissors and forceps. After thorough cleansing a dressing of sterile gauze wrung out of the alcohol is applied. Over this dry gauze and wool are applied, and then a bandage. Under chloroform the same process is repeated daily. Every other day will not do, for the burns begin to be septic and offensive. The parts are rubbed, not wiped, with gauze wrung out of alcohol. On beginning to remove the dressing it will be found stuck to the surface. By pulling upon it bits of dead tissue are satisfactorily removed. The dressings are continued for about eight days, when burns which have not destroyed the whole thickness of the skin will be found in such a clean state that boroglyceride gauze or gutta-percha tissue can be

applied as a dressing without any pain. It is striking how rapidly the burns now heal under the boroglyceride. If they become infected again, one cleansing with alcohol, followed by one alcohol dressing will render them again aseptic. Burns which involve the whole thickness of the skin take longer on account of the sloughs. Under the alcohol treatment these become black, dry, and shrivelled up, and can be torn off or dissected with a sharp scalpel and forceps. Valuable time will be lost if the surgeon waits for the sloughs to separate. The best results follow the cutting off of the sloughs, for they are not sodden, and the surface is aseptic. A scalpel must be used, for it leaves a clean cut, with no track of dead and injured cells as a scissors does. Dr. Milligan has employed this treatment during five months for a great number of burns in the Children's Hospital, Melbourne. One case of extensive and deep burns was fatal. Two large duodenal ulcers were found at the necropsy, but at the time of death (twelfth day) the burns were in an aseptic state, with all the sloughs removed. In all the other cases healing was most satisfactory. They included burns and scalds of almost all parts of the body, some deep, some on the face, and some on the buttocks, where cleanliness is difficult to maintain in young children. The daily use of chloroform did not prove in any way injurious. There was never any vomiting to interfere with the taking of food, so necessary for a burnt child. Anesthesia must be employed, otherwise the application of alcohol would be too painful. When the children recover from the anesthetic they feel no pain, and are quite happy.—*The Lancet*.

DR. HELEN MACMURCHY APPOINTED

Dr. Helen MacMurchy, Toronto, has been appointed by the Ontario Government to a new office, namely, Inspector of Feeble Minded and Assistant Inspector of Hospitals and Charities. The government is to be congratulated upon securing Dr. MacMurchy's services, as for many years she has taken a leading part in several movements for the public's good, such as the prevention of infant mortality, the care of the feeble minded, medical inspection and supervision of school children, etc..

Dr. MacMurchy was graduated from the University of Toronto in 1900 and subsequently took courses at Johns Hopkins and the Women's Medical College, Philadelphia. She was the first editor of the *Canadian Nurse*, and has contributed many valuable articles to medical conventions and the medical press. Her reports on infant mortality are considered the best produced upon that subject.

News Items

Dr. D. F. Gurd, Montreal, has gone abroad.

Dr. T. H. Stark, Toronto, died suddenly of angina pectoris.

Dr. J. S. Williams, Oakville, Ont., died on the 4th of June.

Dr. J. A. Roberts and family, Toronto, are at Beaconsfield, Que.

The University of Toronto has honored Dr. F. F. Westbrook, the President of the new University of British Columbia, with the degree of LL.D.

Dr. Jerrold Ball, for many years in practice, died recently in this city.

Dr. W. Warner Jones, Toronto, has been spending a holiday at Bala, Muskoka.

Dr. Alan W. Canfield, Toronto, will hereafter confine his practice to diseases of children.

Dr. Ernest Hall, Vancouver, who recently underwent a critical operation, has quite recovered.

Dr. W. J. Mayo, Rochester, Minn., has been made a fellow of the Royal College of Surgeons of England.

Congratulations to Dr. Murray Maclaren, St. John, N.B., upon being elected President of the Canadian Medical Association.

Dr. J. Algernon Temple, Toronto, has been honored with the degree of Doctor of Laws by his alma mater, McGill University.

Dr. W. H. Lowry, Toronto, who was severely injured at Niagara Camp, is progressing favorably in the Toronto General Hospital.

Dr. Hughes, editor of the Western Canada Medical Journal, attended the annual meeting of the American Medical Editors' Association.

Dr. Victor C. Vaughan, Dean of the Medical Department of the University of Michigan, Ann Arbor, has been elected President of the American Medical Association.



Are you particular as to the condition of the iron in your B'aud preparations?

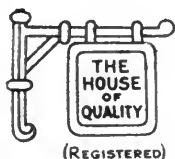
Frosst's Perfected B'aud Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Publishers' Department

A CONTRIBUTION TO THE MEDICAL TREATMENT OF DIABETES. By T. P. Latz, M.D., Chicago, Ill.—If we review in succession all the remedies recommended for the treatment of diabetes we have to acknowledge the sad fact that up to the present time the anti-glycosuric effect of the medicine is, with a few exceptions, still problematic. In former years opium was considered especially effective in serious cases, but it has never become a specific. Other remedies which also were recommended as having good effects have been tried with little success. A remedy which so far is little known in this country, but which has fully justified the expectations of all who tried it, is a preparation under the name of Sanol's Anti-Diabetes which only a year ago was put on the market here. In reducing and eliminating the sugar this remedy has no equal. A medicine to the antiglycosuric should have the following requisites: (1) It must be absolutely harmless. (2) There should be considerably less glycosuria with an ordinary diet than would be possible without medicine. (3) It brings about a quick aglycosuria under a strict anti-diabetic diet. (4) It must increase the assimilation of carbo-hydrates. (5) It must produce, if not an entire cure, a lasting improvement after the medicine has been discontinued. The results so far obtained with Sanol's Anti-Diabetes fulfil to a more or less marked degree all those conditions, as is shown by the experience of many physicians here in Winnipeg, who in the most obstinate cases have used this remedy. Here I should like to mention two of the several cases which the author treated with Sanol's Anti-Diabetes and obtained remarkable results. One patient had been under treatment for about two years without receiving any benefit, while after a few weeks treatment with Sanol's Anti-Diabetes I can pronounce her cured. During the last two months, while living on an ordinary diet, the patient has increased in weight and is entirely sugar-free. The other case was of four years standing. This patient had discontinued treatment altogether, living solely on non-carbohydrates, but nevertheless gangrene had set in. Under the treatment with Sanol's Anti-Diabetes and a strict observance of the diet regulations connected therewith, the gangrene as well as the sugar has entirely disappeared, and the patient is to-day in the very best of health. In conclusion I wish to remark that Sanol's Anti-Diabetes is no nostrum, but a combination of diverse glycosides and perfectly harmless.



Motor and Travelling Coats Dusters and Rugs

Not factory-made garments, but cut and tailored by experts in the West-end of London

MOTOR COATS

Silk Paramattas, Gabardines, Homespun Tweeds and Cashmere cloths. Single and double-breasted styles with military collars and straps on cuffs. Greys, tans, fawns, drabs, greens and khaki colors. - **\$8.50 to \$30.**

MOTOR DUSTERS

Cotton, silk, linen, mohair and alpaca in loose fitting styles with plain or belted backs and wind shields in cuffs. **\$2 to \$15.**

MOTOR RUGS

Light and medium weights in broadcloths and homespuns in plaids and tartans. - **\$3 to \$10.**

**PANAMAS, BANGKOKS, SAILORS AND
SOFT BRAID STRAWS. - \$2 TO \$50**

Motor Caps and Cauntlets; Canes and Umbrellas

Fairweathers Limited

84-86 Yonge St., Toronto

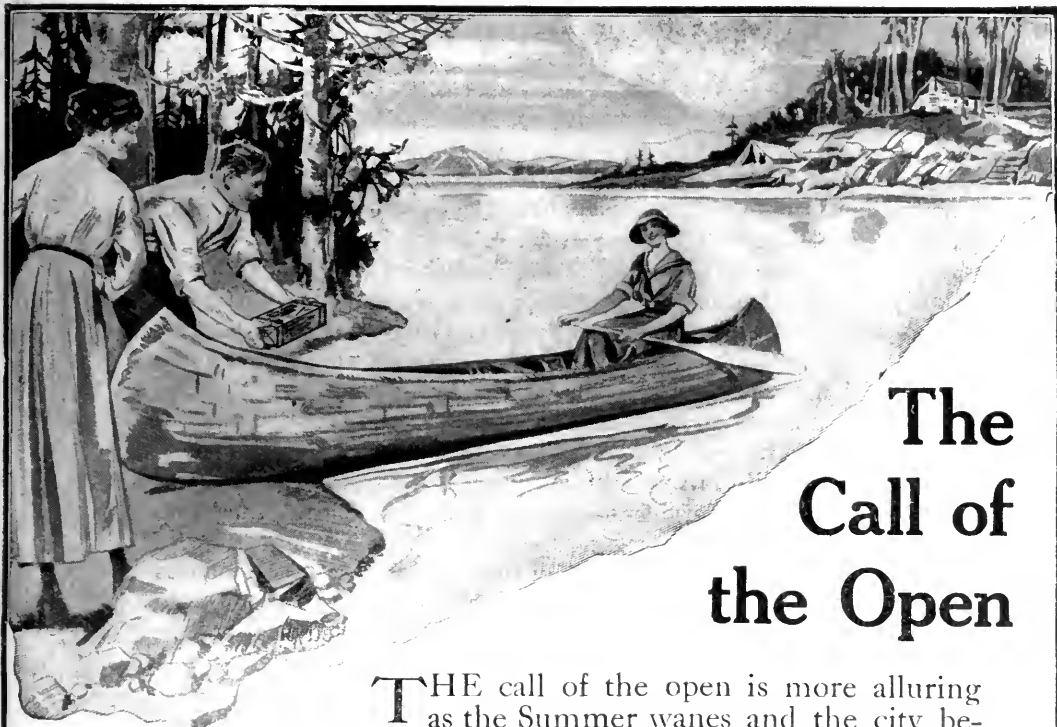
MONTREAL

- - - - -

WINNIPEG

THE JAEGER IDEA.—Jaeger clothing including as it does so many kinds of garments for day and night wear, owes its existence to the idea conceived many years ago by Dr. Gustav Jaeger that clothing was not made from a scientific sanitary basis. Dr. Jaeger made first a special study of underwear, the primary idea being to find out what material is best adapted to the needs of the human body, and in what way to use that material to produce the best results. The conclusion of the whole matter in Dr. Jaeger's mind was that pure wool—for which nature established the precedent—is the only absolutely safe, sanitary and comfortable material to use. How successfully this idea has been evolved and applied is known the world over as Jaeger has become a household word everywhere. Jaeger goods are found in every town and city in Canada.

HAY FEVER: "DISEASE OF MYSTERY."—Dr. S. Fuller Hogsett, of Pittsburg, in his excellent paper "An Experimental Therapy in Hay Fever," read at a meeting of the University of Pittsburg Medical Society, and published in the April (1913) issue of *American Medicine*, New York, points to some interesting facts respecting this "disease of mystery," as he not inaptly refers to it. "As far back as the year 1565, says the doctor, 'Botallus reported a case. Again, in 1673, Von Halmont, and in 1698 Floyer, of London, called attention to this condition. In Good's 'Study of Medicine' there is reference to a case related by Timaeus in 1667 of an attack of asthmatic nature caused by the odor of roses and ipecac.'" Thus it will be seen that hay fever, instead of being a disease of modern origin, as many may have presumed, is in reality centuries old. Discussing the problems of etiology and treatment, Dr. Hogsett continues: "Many theories have been elaborated, and many forms of treatment have been called to the attention of the medical profession. A strain of pessimism regarding the possibility of a cure in this condition appears in the writings of many authors. No one theory accounts for all features of the affection and the many etiological factors." In 1912 Dr. Hogsett treated a number of cases successfully with mixed infection phylacogen. His observations as to methods and results are of interest and value. "In carrying out the phylacogen treatment," he says, "I have found that the initial dose should be small when given either subcutaneously or intravenously. It has been my procedure to begin with a 2 c.c. dose subcutaneously or one-half c.c. intravenously. . . . In giving the subcutaneous injection I usually select the insertion of the deltoid or the area just below the scapule. The latter seems to be the



The Call of the Open

THE call of the open is more alluring as the Summer wanes and the city becomes more intolerable. But the full joy of the outdoors comes from freedom from household care and business worry. Taking the city into the country affords no relaxation from the complex problems of every-day life. Complete rest and healthful recreation must come with simple food and simple living. For the country home, for the bungalow by the sea, for the camp in the woods, for life in the open, nothing can equal

Shredded Wheat

as a food to sustain strength and to fully satisfy the keenest hunger. Being ready-cooked and ready-to-eat, it is the favorite ration of those who seek respite from the city heat far from the sources of food supply.

The Biscuit is deliciously nourishing with milk or with fruits of any kind. Tris-cuit is the shredded whole wheat wafer, or toast, containing the maximum of nutriment in smallest bulk. With butter or soft cheese it forms a delicious, satisfying lunch for the long ride in automobile or the tramp in the woods.

All the Meat of the Golden Wheat

Made only by

THE CANADIAN SHREDDED WHEAT CO., LTD. NIAGARA FALLS ONT.

Toronto Office: 49 Wellington St. East.

ideal spot, as absorption takes place very readily and the complaints from the local reaction are much less. I repeat my injection either daily or on alternate days, the interval to be determined by the clinical condition of the patient. It is seldom necessary to give more than four to six injections, the symptoms often disappearing after the second or third injection. Almost immediate relief is noted by the patient. The irritating discharges from the eyes and nose are diminished in amount, the sneezing is lessened, the dyspnea is relieved, and the patient usually sleeps comfortably. All cases that I have treated successfully have remained well through the season. I have yet to record only one failure, but I have not had a sufficient number of this class of cases as yet to warrant a positive claim that this remedy will act in all forms of the disease." Clinical experience with mixed infection phylacogen in the treatment of hay fever is inconsiderable as yet. The product had its inception in 1912, when the season was well advanced, and the opportunities for its employment were necessarily limited. The next two months will undoubtedly tell the story of its applicability to this hitherto intractable disease, and the results of a more extended trial will be watched with a deal of interest.

GREATEST ART EXHIBIT.—Famous Paintings from Germany, Britain, United States and Canada. The display of paintings at the Canadian National Exhibition draws lovers of the beautiful from all parts of America. In the galleries are gathered the best works of Canadian and United States artists, and the great galleries of Europe loan their treasures to further enhance the value of the collection. This year the galleries will be divided into four sections: British, German, American and Canadian, and the entire exhibit promises a distinct advance on the previous great collections that have featured the Canadian National.

GRAND WATER CARNIVAL.—Full Bill of Water Sports to be a Feature of this Year's Canadian National Exhibition.—Water sports are to be a big feature at this year's Canadian National. The splendid water front of the Exhibition City offers splendid opportunity for this line of amusement, and arrangements are being completed for motor boat races, war canoe races, swimming races, aeroplaning, hydroplaning, etc., etc. There will be something doing on the waterfront every day and for those who like their's with water there won't be a dull moment.

Give him BOVRIL

BECAUSE

the Body-Building Power of Bovril has been proved to be from 10 to 20 times the amount taken

Dr. Deimel Underwear (LINEN-MESH)

The Dr. Deimel Underwear is the garment for people who desire to enjoy bodily comfort and cleanliness to a degree not obtainable from woolen or cotton underwear. For hot weather you need more than ever this cool, cleanly underwear. For the perspiring, over-heated body, it is a refreshing luxury.

DEIMEL LINEN-MESH COMPANY

416 St. Catherine St. West.

MONTREAL, Can.

BRANCHES:

New York, N.Y.

Washington, D. C.,

San Francisco,

Brooklyn,

Baltimore,

Detroit,

London, Eng.

We also sell the Dr. Deimel Linen-Mesh Supporters.

FOUND CHAIR AT LAVAL FOR STUDY OF TUBERCULOSIS

**MR. J. A. RICHARD GIVES TEN THOUSAND FOR FIGHT
WITH WHITE PLAGUE.**

Laval University has unanimously accepted the offer of Mr. J. Auguste Richard, President of the Fashion Craft Company and well known in local business circles of \$10,000 for the establishment at the French seat of learning of a chair of Phthisiotherapy. Dr. J. E. Dube, of Montreal, who for many years has been a close student of tuberculosis and tubercular symptoms has been appointed the first incumbent and he enters upon his duties immediately. Speaking of the founding of the newest chair at Laval, *L'Union Medicale*, an important French medical publication says:

"Thanks to Mr. Richard's generosity and broad mindedness, to his wise thought and supple mind which realized the importance and the necessity of a strong fight against the dire enemy, tuberculosis; a new start has been taken, by which its rapid growth may be checked and its terrible consequences warded off from many otherwise innocent victims, who, through lack of knowledge, or proper care, would be ravaged by this dread disease. The thanks of our city are and should be unanimously tendered to such men as this, who wisely and willingly endeavor to do their duty in this life, and withhold nothing that is in their power to aid in the building up, both morally, mentally, and physically, of those who go side by side through the battle of life with them, towards the common goal.

"The donor in this case is known to many as a philanthropist of the highest standing, his name being connected with many charitable and beneficial organizations throughout Canada, whilst in Montreal he is best known as President of the Bruchesi Institute and Governor of Notre Dame Hospital. He is known as an active, energetic co-operator, whose level headed knowledge of business affairs renders his advice of the greatest value to his fellow-workers for the welfare of humanity.

"There is no doubt that a public dispensary such as that of the Institute Bruchesi, fills a very important want, as it is there that the doctor comes in contact with the sick, teaches them and gives them intelligent and assiduous care, and draws their attention to the best means to prevent contagion and the spreading of the disease, but this was not sufficient. It was necessary to place the seal of "officialism" on the teaching "against tuberculosis" so that it would become perpetual and give a real start to the fight which is being pursued everywhere else, and which has already provoked here such beautiful devotion and such noble aspirations."

Mr. Richard is President of "Fashion Craft," Mfrs., whose advertisement appears on inside cover page.

Dominion Medical Monthly

And Ontario Medical Journal

VOL. XLI.

TORONTO, SEPTEMBER, 1913.

No. 3

Original Articles

PRESIDENT'S ADDRESS*

BY H. A. McCALLUM, M.D., M.R.C.P. (LOND.).

If I had considered the high honor and responsibility awarded me by the Canadian Medical Association at our meeting in Edmonton last year, I should perhaps have declined the flattering tribute, as much from consciousness of my own inability to fulfill the distinguished position in a manner satisfactory to myself, as from a sense of what is eminently due to the scientific and high professional character of this national Association. However, inadequate as the discharge of my obligations of office may prove to be, I am emboldened by the support of my local colleagues, and the encouragement of numerous members throughout the Dominion, to rely upon your indulgence for whatever is stale and unimportant, or for whatever may be defective in the manner of my address to-night. It has been the practice of my predecessors in office to sweep the whole horizon of Canadian medicine for objects worthy of the attention of this Association. I plead for the liberty to say painful truth when dealing with matters that affect the honor of our profession, and it is not from love of wounding or pleasure of stinging that I am dealing boldly with professional defects and offences. I would rightly merit the contempt of you all did I pass these things by on the other side.

The first thing to challenge our attention is the relative indifference shown to this Association and what it represents by too many of the eight thousand doctors in the Dominion. The Association has had no mean part in removing narrow, provincial medical prejudices and in bringing about legislation that resulted in the accomplishment of Dominion registration. The splendid service of the British Medical Association to the profession of the

*Given at the Annual Meeting of the Canadian Medical Association, London, June, 1913

British Isles, in dealing with the terms of Lloyd George's Insurance Bill, points out what an association can do for each individual member of the profession. The future outlook of Canadian medicine demands a strong association to confront legislation that would make us a despised arm of the civil service. It may be there are greater evils in store for us than being brought under the pay and direction of the Canadian civil service. If thereby the public were protected against its own "giant credulity" and our profession purged of its abuses, one could gladly welcome the change. So long as a nation can elect a demagogue to its legislative halls there is sure to arise the attempt. It may be in the very near future. Let us be armed to secure the most favorable terms. If four-fifths of the profession belonged to the Association, instead of one-fifth, as at present, no attempt could get under way to bring us into the service without our consent.

Previous to the inauguration of the *Association Journal* there were practically no permanent members of the Association, except its officers. The membership lasted only during the meeting, and its character changed from year to year. Since the appearance of the *Journal* the permanent membership has reached nearly fifteen hundred, and the attendance at the annual meetings has more than doubled. Two factors have created gigantic associations in the United States and Great Britain, viz., the unification of all city or county societies with the national association, and the establishment of a weekly journal. The national association should be the apex of the pyramid, whose base is the provincial societies built upon the city and county societies. At the suggestion of President Mackid, the Association last year directed the secretary to induce each provincial society to secure affiliation with itself of all the city, town and county societies.

The great bond between the national association and the individual in the profession is not the annual meeting, but the weekly journal. It is by way of a weekly journal that we can succeed in forcing this Association into greatness. It will require funds to put the *Association Journal* out as a weekly, but the difficulty of obtaining these funds is not insurmountable. One way is to canvass the profession for a membership on the basis of a weekly journal. A membership of one-half of the profession of this country would assure the continued existence of a weekly issue. Another way is to secure an endowment, the interest on which when no longer needed for the maintenance of the weekly journal, could be used for lectureships and research work under the Association's guidance.

The Association is greatly in need of funds for other reasons, one of which is to rescue our profession from being exploited by the commercial enterprise of certain drug houses. Abraham Flexner ("Medical Education in Europe," page 90), speaking of this evil under the head of medical education in Germany, pertinently remarks, "The critical pharmacologist has discredited the old wives' tales that kept up the traditional pharmacopeia. Meanwhile the manufacturer is spinning a new superstition; the chemical industry of Germany is aggressively and intelligently directed. Only a critical pharmacological sense can enable the practising physician to know when to doubt and how far to believe the sanguine and assertive claims made upon him by the manufacturing chemist." The American Medical Association, through a committee on pharmacy, has undertaken to investigate some vaunted claims of certain drug houses with beneficial results to the profession in general. May I ask, are all the medical publishing houses with their endless padded encyclopedias on every conceivable branch of medical science, not likewise guilty of exploiting our profession? Nothing can be done against these exploitations, unless we have paid, skilled and scientific censors. For this purpose, funds obtained through increased membership are urgently needed. Above all, we need the influence of all "the respectable and redeemable members of the medical profession in the remote districts as well as in the great centres of our Commonwealth," that they may have a hand in shaping all legislation affecting the future of our profession and the public health of our country.

The committee of this Association has been promised by the Right Hon. R. L. Borden that there will be created in the near future a portfolio of Public Health. Inasmuch as these changes take a long time in coming, it behooves us to keep urging the authorities. We cannot get a pure food law or federal control of vaccines, serums and drugs, such as has been in operation in the United States during the past ten years, without such cabinet appointment. There they have a fine of five hundred dollars or one year's imprisonment for conviction of adulteration.

Like several of my predecessors in office, I desire to refer to some phases of medical education. The Carnegie Foundation for the advancement of teaching medical education has done great service for medicine on this continent. Out of its criticisms has arisen, almost everywhere, improvement. Not the least valuable part of its contribution is this, that it gave support to that faction of every medical faculty desirous of being abreast of modern edu-

education. The Carnegie Foundation authorities have, however, over-emphasized the laboratory side of medical instruction. The German method of medical education is to tie the medical student to a microscope, as opposed to the English method of cultivating knowledge through the unaided eye. In Germany the aim is to make scientists first and then doctors. Whereas the "primary purpose for which students learn sciences is to become physicians, not scientists." The literature of the several subjects that form the basis of medicine has become so extensive that no man can keep abreast of it. Physiology, which is easily the most essential of all primary studies, has become so elaborate that it has suffered subdivision into three or more departments or professorial chairs. There exist similar subdivisions in bacteriology, pathology, and anatomy. As each teacher declares himself incompetent to instruct outside his subdivision, how idle to attempt to make anatomists, physiologists, bacteriologists and pathologists, etc., of medical students. The time is not so very remote when a medical student could master all the primary branches of medicine. To-day it is not possible for him to master a single branch of the sciences that are connected with medicine, during his college course. The instruction given to medical students does not enable one student in a hundred, no matter how high the standing of the school may be, to say whether a throat culture is or is not diphtheria. For years American medical teaching has been dominated by the German plan of instruction. In certain quarters there is setting in a reaction. It is claimed that we have become guilty of a fetish-worship of laboratories in medical instruction and medical practice.

The great physician and surgeon must depend for his diagnosis upon the physical examination and the evidence he extracts, sifts, and weighs in the patient's history. Laboratory methods are of only occasional use, viz., to support or not support clinical findings. Within the last few years physiological and pathological chemistry have assumed increasing importance in medical instruction, and would appear to be rapidly pushing, and possibly rightly so, all the other laboratory subjects into the background. It is hopelessly futile to attempt anything more than the most elementary teaching in the primary subjects of medicine to-day. The tried-out subjects of the ages, anatomy, physiology, and chemistry, should have preference as to the length of instruction hours. A student's most precious possessions are his time, his vitality, and a clear mind at the age when the mind is most supple, its curiosity most alert, and its nature most impressionable. It is only by cutting down the

time allotted to laboratory subjects that we will be able to find a place to instruct students in all the physical, mental, and nutritional forms of healing. It is high time that there was a readjustment of the programme, and a place, if not a professorship, given to these important subjects. Starling, in his preface to his "Physiology," has rightly said, "Until doctors know more about the physiology of nutrition, quacks will thrive and food faddists abound. Ignorance of physiology tends to make a medical man as credulous as his patients, and as easily beguiled by the specious 'puffing of the advertising druggist.' " Some bold surgery is needed in the medical curriculum. At present it is clogged and strangled with too many subjects, and the malady is yearly increasing. This virtually amounts to a confiscation of the most plastic, receptive, and promising years of the student's life, by making him study subjects almost ulterior to the dominant purpose of his life. It is an academic crime to add more burden to the already overworked medical students, some of whom leave the college doors now with wrecked health. As the subjects become more intricate and complex the teaching should become correspondingly more elementary. Medicine has nursed many of the sciences from infants to giants. Now each one is able to set up a house of its own over which a full-time professor presides. They have emigrated into the land of pure sciences. In the reconstruction of the time-table, every hour added for a new subject should be cut off from the non-essential.

I am one of those who had the good fortune to serve, while a medical student, an apprenticeship under the guidance of an able practitioner, and I cannot get away from the thought that the time so spent was far more valuable to me than an internship in a hospital. The enormous increase in hospitals throughout the country makes it unnecessary for a recent graduate to be without an internship. However, there ought to be a choice between an apprenticeship and a year's apprenticeship with certain designated members of the profession.

A leading insurance company on this continent has found it profitable to pay its examiners a fee for an annual examination of each of its policyholders. The laity insure their barns, buildings, and their valuable stock against accident, and make periodic careful inspection and veterinary testing of these, and yet they will go from year to year without even thinking of subjecting themselves or their families to examination by a reputable physician, that incipency in ailment may be detected and remedied. Why should we resort to medical inspection of schools and neglect the yearly inspection of the adult citizens of the country? Let us try

to hasten the day when no man shall think of exercising the right to withhold himself or his family from a yearly physical examination by a reputable physician, to determine any tendency to disease or the presence of disease itself. I am not blind to the fact that this innovation can lead to abuses, for it is impossible to eliminate at once from our profession the alarmist, the surgical tinker, and the obsessed drug giver.

In common with the profession in the republic to the south of us there are problems here affecting the public no less than the profession. These demand solution. Already there has been inaugurated at Washington, during the past month, a movement to establish a non-teaching college analogous to the Royal College of Surgeons of England, with the aim of giving higher degrees in surgery. The bearer of such a degree will have, from competent authorities, the stamp of approval declaring him capable of doing good surgery. American surgery, recognizing that their evils are likewise our evils, has most kindly invited well-known, reputable Canadian surgeons to become founders with themselves of the projected college. Not only will this college demand of its graduates technical knowledge and operative skill, but, above all, honesty and unquestionable moral character. A movement of this kind is intended to abolish needless and abusive surgery together with its invariably associated dichotomous fee. To do this effectually, those holding such degree must have public support and sympathy. Is not the time ripe when we should receive higher degrees in Canada, not from Great Britain and the United States, but from a Canadian institution, founded by the Parliament of this Dominion preferably at Ottawa? The ambition of ninety-five per cent. of the recent graduates in medicine is to become surgeons, and in many cases life's efforts are directed to this end. Matters have come to such a pass that the recent graduate thinks of disease only in surgical terms, the medical side is "a despised weed." We need competent medical men and competent obstetricians just as badly as we need competent surgeons, that is, we need men in these departments who have the knowledge of specialists. There is too much tendency to accept mediocre attainment in the two former, and demand thorough attainment in the latter. Given a standard high degree in these subjects, along with publicity of their meaning, we would find plenty in the profession who would put forth continued efforts at self-education for their attainment. There is a dearth of competent men in many departments of medicine and an overcrowding of the profession with mediocre ability.

My duty to the profession and to the public would not be done did I not refer to the miserable medical fees common to some districts of this country. Once a fee becomes established in a community it is hard to raise it. In certain districts in England the twopence and threepence fees still persisting are relics of Henry the Eighth's time. A banker, stating tersely the altered value of money, said that in 1860 \$20,000 would yield in interest \$2,500 annually. This sum would go as far as \$6,000 for living expenses to-day; \$120,000 would be the amount of principal required to earn \$6,000 to-day. In other words, \$20,000 in 1860 yielded a living for which \$120,000 would be required to-day, one dollar being equal to six nowadays: "The laborer on the street has been quicker to grasp the altered value of money than your profession," said the banker, "and what is more, he has had, as a rule, the courage to demand his right to substantial increased wage." Through a failure to carry on a campaign of education in favor of better medical fees, there has arisen a disproportion between medical and surgical fees which is largely responsible for fee splitting. One general practitioner gave an illustration in this way. He said he took Jenny B. to a surgeon for appendicular operation between attacks; the father paid the fee of one hundred dollars. Six months thereafter, he protested a bill of twenty dollars for attendance on his other daughter for a severe and prolonged attack of pneumonia. So long as there are miserable medical fees and this disproportion between medical and surgical ones, the fee splitting cannot be stamped out. There must be a good living wage for honest medical service, or members of our profession will fall into dishonest practices, and sink into the mire of dishonor itself. The righteous course for our profession to pursue is, while not distressing the deserving poor, to be careful not to put a premium on mere stinginess.

Medicine has made contribution to every calling in life. It is our high duty to go further. We must not continue the silence of centuries any longer. We must educate the public in the scientific principles of medicine far enough to give them ground to judge in their true light the sophistries of the quack and the charlatan. The osteopathist, Christian scientist and chiropractor succeed with even the supposedly educated and intelligent, because they teach the public their theories of disease and healing. To tell a patient that his bile has become thickened and that the grooming he is about to receive will make the bile more limpid, is an explanation not above his comprehension. What we must do is to educate the public till such an explanation will not be entertained. The greatest publicity should be given to the achievements of regular medicine

since it became worthy of being a science. Should not every school-child know that through our profession the average length of human life has been doubled; that in the last twenty-five years, eight years have been added to the average length of life; that it is to our profession that every civilized nation looks to wipe out plagues and hold back and even arrest epidemics? We have given the widest publicity to vaccination against smallpox with happiest results. Why not give publicity to the equally valuable vaccination against typhoid fever? Our battle against tuberculosis has been a publicity campaign in which the laity has not only believed, but has actually joined with us in great force. The enlightenment of the public in this will render it impossible hereafter for the heartless quacks to thrive upon the ignorance of the consumptive victim. If the battle against cancer, the twin monster of tuberculosis, gains this publicity together with a similar sympathy and active support from the laity, our triumph over this disease is to be within the life of many in this room. Let us never grow tired of impressing the fact that it was the regular profession which discovered anesthetics, abolishing pain and agony off and on the operation table, and that it will not be in the power of the human race in the future to duplicate a boon to humanity like antiseptic surgery. In spite of the fact that serum has cut the fatalities of diphtheria in half, in addition to putting into our possession the most potent agent against the spread of this dread disease of childhood, that the Spanish American Main has been swept clear of the yellow fever scourge, and that we have not only the cure for malaria, but also the power to wipe it off the face of the land, yet there are, both among the ignorant and intellectual, those who declare that medicine has made no advancement in one hundred years, and all this because we have not given the widest publicity to our achievements. In the expressed opinion of Lord Salisbury, medicine is the most exact and advanced of all the true sciences. It has rendered tributary to itself the knowledge of every walk in life.

In conclusion, while I have unflinchingly probed these festering sores on the surface of our professional body, I hasten to declare the heart of it to be sound and flawless, jetting out from its valves a fountain stream of all that is splendid in the history of science and humanity; matchless in progress, matchless in achievement, and matchless in future outlook.

ADVANCES IN MEDICINE

BY DR. LEONARD KEENE HIRSHBERG, A.B., M.A., M.D.
(JOHNS HOPKINS).

The lugubrious Descartes it was who maintained that the scientific forward movement is greatest where the opposition to such a movement is greatest. This gentleman was afterward confined in an asylum and died gloriously. But at the time he made the remark he spoke true, if bitter, words, and they were utterly and indubitably sane. If you don't believe it, consider for a moment the history of medicine.

When the healing art was sacred and impeccable—when the physician was half necromancer and half priest and a doubt of his skill was an impiety—people were dosed with golden elixirs and bled to death, and a prescription was esteemed in direct ratio to its antiquity, orthodoxy, and absurdity. To-day, with ten thousand vociferous foemen upon each flank, the doctors of the world are getting ahead. Every day they abandon some old method and invent a better one. Every day they save more human lives.

Christian Scientists, faith healers, devotees of the "new thought" (whatever that may be), and compounders of patent medicines—all of these enthusiastic faddists are doing the race a real service. In the first place, they are helping the law of natural selection to stamp out the unfit—which means the ignorant and credulous, and, in the second place, their incessant and telling criticism is ridding medicine of its barnacles. Their objection to every specific and lotion is the same: "But it doesn't cure!" When this objection happens to be true, it sends the embarrassed pathologists searching for something that does cure. When it is false, it does no harm—except to the critics themselves.

For this reason, an earnest lodge of anti-vaccinationists in a community often makes that community proof against smallpox. These persons refuse to be vaccinated. They publish pamphlets showing that vaccination causes leprosy, measles, and appendicitis. When the official vaccinator comes around they set their dogs on him. When they are haled into court they fight like fiends and go to jail like martyrs. Everyone else in the community submits to arm-scraping, but these rebels defy the law and emerge from jail with whole skins.

The row is forgotten and a couple of years go by. Then one day a sailor comes ashore from an East Indiaman with certain

nasty-looking pustules all over his body. He visits twenty saloons, parades the crowded streets, and sleeps in a room with fifteen other men. Of the citizens vaccinated one-hundredth of one per cent. take the disease and one-thousandth of one per cent. die of it. Of the valiant anti-vaccinationists fifty per cent. are laid low and seventy-five per cent. of the fifty per cent. die. Thereafter, in that community at least, the anti-vaccination crusade languishes and the official vaccinators, when they make their rounds, are no longer denounced, barred out, and deluged with hot water.

And so it goes. The more vigorous the opposition, the better. When it is vigorous the general public becomes aware of it, and is forced, willy nilly, to observe its results. If it ends in the overthrow of some outgrown scheme of medication, well and good. If, on the contrary, it ends in proof positive that some new scheme of medication is efficacious (no matter what the cost to the dissenters), well and good, again. For the fact that smallpox is almost unknown to-day in civilized communities we have to thank the Rev. Edward Massey, the Abbe Filiatrault, and other theologians who combated prevention, and the dupes who died in following them, as well as Lady Montague and Dr. Jenner, who fought the first battle for vaccination. The same war was made upon anesthetics, and it is being made to-day upon the diphtheria antitoxin—and the result always has been, is to-day, and always will be, the same.

The history of medicine's final defeat of diphtheria, when it comes to be written, will be more dramatic and impressive than the story of any of Napoleon's campaigns. Fourteen years ago diphtheria was a universal and terrible plague. It killed hundreds of thousands of children every year, in all countries, and the doctors were helpless before it. It had been raging in the world for twenty-five centuries—the ancient Egyptians knew its heavy hand, and the Greeks called it Egyptian ulcer, but no progress whatever had been made in combating it. The average mortality was seventy-five per cent., and in some epidemics it reached nearly one hundred per cent. Gargles, applications, sprays and internal druggings were useless. Of the hundred "cures" and thousand theories, not one was worth the time it would take to describe it. The cause of the disease, the tiny bacillus diphtheria, had been discovered as far back as 1883 by a German named Klebs—but no one knew how to kill it. Then, one day in 1893, a man named Behring invented the diphtheria antitoxin, and the death rate dropped from seventy-five per cent. to less than ten per cent.

It is rather difficult to make the tremendous result of this discovery plain, because the figures showing the number of cases of

diphtheria in the United States each year are by no means reliable. In one State, however, fairly accurate reports are made, and from these we may gather much of interest. This State is Pennsylvania, which has an enlightened health board, and has been distributing antitoxin, free of charge, since the fall of 1905. Diphtheria used to be a fearful scourge in rural Pennsylvania, and it was common for an epidemic to close the schools of an entire township. The number of cases ranged from three thousand to six thousand a year, and placing the death rate at the moderate average of fifty per cent., this meant the death of from 1,500 to 3,000 children every twelvemonth.

Then came the antitoxin. During its first three months of use it reduced the death rate to about fourteen per cent. During the ensuing year it worked a further reduction to about eleven per cent. During the year following, 1907, it brought the rate down to 7.13 per cent., and among the 3,304 cases—three-fourths of the total number—treated on the first day—to 4.59 per cent.! In other words, the effect of this free distribution of antitoxin has been to save the lives of from 1,200 to 2,500 Pennsylvania children a year! Isn't that cheap enough for sound human beings—boys who may live to do honor to their country, girls who may become the mothers of Lincolns, Pasteurs, and Lazears?

The returns from the country in general are wonderfully inadequate, since, in more than half of the States, infectious diseases are not reported accurately and there is no intelligent war upon epidemics. But it is safe to say, I think, that there are 100,000 cases of diphtheria in the land each year and that antitoxin is used in the treatment of half of them. This means, at a fair estimate, the saving of 25,000 young lives a year, or about five hundred a week. Without the antitoxin, these children would die.

All such figures by no means represent the entire value to the nation of the antitoxin, for, in addition to its curative powers, it is also invaluable as a preventive. In the old days, when one case of diphtheria appeared in a house, it was common for all the other children under the same roof to take it too. All that is now a thing of the past. Immediately after he finishes injecting antitoxin into the veins of his little patient, the physician of to-day proceeds to give immunizing doses to the other children, and as a result they escape entirely. This, it is plain, has the effect of greatly reducing the number of cases, and so the malady is being combated in two ways, and in each way very vigorously and efficiently. Were the use of the antitoxin made compulsory in all

cases, diphtheria would disappear entirely from the United States in ten years.

As it is, the days of the disease are numbered. Opposition to the use of antitoxin lingers among the ignorant and transcendental, and even among certain "old-school" physicians, but every now and then the public is made acquainted with the sad fate of some faith curist's child, who, denied the aid of one of medicine's triumphs, dies in lingering agony. A paragraph of that sort, floating through the newspapers, makes people think, and when people begin to think they are very apt to be impressed by figures.

Two other maladies that have seen their best day are cerebrospinal meningitis and tetanus (lockjaw). The former seems to be a native of America, for it was unknown to physicians until first noted in this country in 1805. Since then it has spread to Europe, and under the name of spotted fever and other cognomens is widely epidemic. In our own country it has been as common, at times, as typhoid. Often it is mild, but sometimes, during a bad epidemic, the death rate has reached ninety per cent. But this last will never be recorded again. The general death rate has been reduced from eighty per cent. to sixteen per cent. by an American, Dr. Simon Flexner, of the Rockefeller Institute of Medical Research.

Dr. Flexner's specific is an antiserum much like that for diphtheria. It is prepared by accustoming a horse, which has a high natural power of resistance to meningitis, to increasing doses of the germs and their toxins. In the end the horse's blood acquires such a power of resisting the germs that they no longer inconvenience the animal. Then some of this horse blood is drawn off and injected into the veins of a human patient. Here it continues its war on the germs and their toxins, and in about five cases out of six routs and neutralizes them.

The meningitis antiserum is still in its early stages, and so it is not nearly so certain in its effects as the antitoxin for diphtheria. But experience will improve it, and in a few years meningitis will pass into the limbo of terrors that were, but are not.

The lockjaw antitoxin is brother to that of diphtheria and a cousin to that of meningitis. It neutralizes and makes harmless the virulent poisons secreted by the lockjaw germs. As everyone knows, lockjaw is an exceedingly dangerous disease. It is caused by a bacillus discovered by Nicolaier in 1885 and is a common sequel to small injuries, particularly the ragged, contused cuts, bruises and burns caused by fireworks, nails, and farm implements. The bacillus lurks in street dirt and so reaches the hands. So long as the

skin is unbroken it can do no harm, but when an exploding fire-cracker, for example, forces it down into the flesh, it begins to increase and multiply, and in the course of time convulsions and spasmodic contractions of the muscles follow, and death is not far away. The antitoxin, if injected at the time of injury, i.e., before the lockjaw develops, battles with the poisons given off by the germs, and so saves the patient's life, for the poisons and not the germs themselves cause death.

Tetanus antitoxin is very expensive and its value is not generally appreciated, even among physicians. In consequence there are many cases in which it is employed too late or not at all, and so the death rate continues to rise a bit each year just after the Fourth of July. But where its uses are known, it has demonstrated its value most dramatically. In Baltimore, for example, every recurring Fourth of July was once followed by the appearance of many cases of tetanus in the death returns; but after that holiday in 1908 there was not a single case! This result, true enough, was partly due to a police war upon fireworks, but it was also partly due, and no doubt in greater part, to the general use of the antitoxin immediately the injury occurred. I have had twelve cases of rusty nail injuries, without a case of lockjaw, because of the free use of antitoxin.

The fact that every American city cannot show a similar clean sheet is a sad commentary upon public and professional ignorance and prejudice. An injection of antitoxin, within a few hours after injury, is a practically certain preventive of lockjaw, and even if it is not used until a day later it materially reduces the violence of the convulsions, and in consequence decreases the chances of death. But if it is not employed until the patient's jaws are actually "locked" it labors under crushing handicaps, and requires the highest degree of skill in the physician to prove its usefulness.

Promptness, in truth, is an essential in the use of all antitoxins. That for diphtheria, for instance, is just about ten times as valuable on the first day as it is on the sixth day. The Pennsylvania returns show that among children immunized within twenty-four hours after diagnosis but four and a half per cent. die. On the second day the death rate rises to nearly nine per cent., on the third day to nearly fourteen per cent., on the fourth day to nearly twenty-four per cent., and on the sixth day to nearly twenty-four per cent., and on the sixth day to forty per cent.

And even when, despite tardiness, the patient pulls through, the complications which follow in the train of most infectious diseases

and impede convalescence are aggravated by every hour's delay. In diphtheria a very common complication is paralysis. If the antitoxin is used on the first day, this paralysis occurs in but three per cent. of the cases, but if it is not used until the second day there is a jump to twelve per cent. If, finally, immunization is put off until the third day, one patient out of every five will be paralyzed. It may be set down, indeed, as a general rule that the more liberally antitoxin is used, and the earlier, the less chance there will be of distressing consequences. Most antitoxins are expensive and their administration is often painful, but it is extremely dangerous to take such consideration into account.

So far the pathologists have perfected few antitoxins of value beyond the three described. But the good work is going on apace, and we are plainly on the brink of marvellous advances. Pasteur said truly, "It is in the power of man to drive infectious diseases from the earth." Pneumonia is one of the maladies that will be conquered, I believe, before long. Now that the death rate in tuberculosis is fast declining, this other and more terrible malady of the lungs is gaining the dubious honor of being the principal cause of death in the United States. But we are no longer fighting it in the dark, for the germ which causes it is now known to every student, and success in stamping it out is only a matter of time. Several pneumonia antisera and vaccines have been put forward, but as yet it would be hazardous to attempt to determine their value. Meanwhile all the old "cures" for pneumonia are being thrown overboard and fresh air is nature's only ally.

That fresh air is no inconsiderable remedy, and that the discovery of its value is not the least of medicine's achievements in recent years—these things are well demonstrated by the world-wide war upon tuberculosis now in progress. Twenty, or even ten years ago, the unfortunate person who developed the more visible symptoms of consumption was doomed to almost certain death. The medicinal standbys were cod liver oil and alcohol—one a nauseous food and the other a poison. To-day the consumptive knows nothing of either. Instead he is fed upon meat, vegetables, milk, and eggs, and sent into the open air. He takes no medicine whatever—not even a dose of camomile tea or a gill of sweet spirits of nitre. A year or so of this treatment and he is a new man. Pure air and nourishing food have given him rich, healthy blood, and this blood has fought and conquered the germs in his lungs.

It is always blood that does the work. In the child suffering from diphtheria or lockjaw or meningitis, it is the horse's blood. In tuberculosis, pneumonia, and typhoid it is the blood of the

patient himself. Healthy blood is the most certain and vigorous of all germicides. Its white corpuscles, floating about among their red brothers, are engaged in a ceaseless hunt for the organisms of disease. When a white corpuscle encounters a germ, it tries to swallow the invader, and so put an end to its baleful activity. Ninety-nine times out of a hundred it succeeds, but the hundredth time the germ is too strong, the corpuscle is too weak, or there are too many germs or too few corpuscles—and the host of both grows ill.

In all infectious diseases modern medicine tries to aid the corpuscles, either by feeding them new serum and so making them strong, by directly attacking the germs, or by neutralizing the poisons secreted by the germs. These poisons do more harm than the germs themselves, for they attack the heart, the brain, and all the other organs, and so by interfering with the natural operation of the bodily machinery, deplete the blood and handicap the white corpuscles in their good work. Thus the germs wage their war upon health—by attacking the corpuscles directly and by attacking them circuitously and from the rear.

Now, the blood of the average healthy man is more than a match for the germs of tuberculosis. If a few of them happen to invade his body, his blood quickly pounces upon them and puts them to death. But if the invasion is made by tuberculosis germs in extraordinary number, or if the man happens to be exhausted, underfed, or otherwise out of form, his blood loses—and he is a consumptive. He may get out of form by working too much, by breathing bad air, by overindulging in alcohol, by eating impure food, or by suffering an attack of pneumonia, malaria, or influenza. Or he may be a born weakling, and foreordained to lose his battles with germs. Again, he may take in an extraordinary lot of germs by sleeping with a consumptive, by breathing infected street dust, or by drinking from a public water glass. If any of these things happen the invading germs find lodgement in the man's lungs, or in some other organ, and the man himself begins to lose weight and appetite and to have a fever.

What is to be done? Nothing could be more simple! The man must be transformed from a weakling into a man of strength. He must take clean air into his lungs, to ferret out and paralyze the germs and to aerate and invigorate the blood. He must take plenty of simple, nourishing food into his stomach, to make blood, sinew, and fat. He must keep himself clean. He must rest. He must put aside all cares and worry. If he does these things he will note an improvement almost immediately. His fever and cough

will disappear. His weight will begin to increase. He will begin to feel fit and vigorous. Exercise will no longer exhaust him. He will eat with relish, and his stomach will digest his food without protest. He will lose his old despair and see hope ahead. In the end he will be well.

It may be argued by the unthinking that all this is not medicine—that the physician who puts a consumptive upon such a routine is merely confessing that medicine can do nothing for him. But this argument is fallacious, for the open-air treatment of tuberculosis was devised, not by laymen, but by physicians, and as it stands to-day it represents the results of long years of experiment and inquiry in laboratory and hospital.

But this open-air treatment is not the last word. It cures thousands, but it is always lengthy and tedious, and it is by no means mathematically certain. Already plans to aid or supplant it with something better are under way. This something better, it is probable, will take the form of a tuberculosis serum—a serum that will be the direct descendant of the tuberculin of Dr. Koch. Experiments with various modifications of tuberculin are now in progress in every civilized country in the world, and the results are beginning to show promise. In certain forms of tuberculosis it seems to be a true specific, and in tuberculosis of the lungs it is proving more and more effective every day. Ten years from now—who knows?—a case of consumption may be cured absolutely and permanently in—six months—maybe in three!

And this is the supreme achievement of modern medicine. It has cast aside guesswork forever. Its business to-day is to discover the cause of each and every malady, and, having found this cause, to devise a cure—not by haphazard groping in the dark, but by a cool, scientific application of known principles. The antitoxin for diphtheria opened the way for antitoxins for lockjaw and meningitis. The open-air treatment of tuberculosis opened the way for the rational treatment of pneumonia and typhoid. In a few years we will have specifics for all of these diseases. And when that time comes the world will not forget the men who are working in a thousand laboratories to-day—working for the good of the human race, quietly and unrewarded, while fools laugh.

THERAPEUTIC NOTES

Incomplete Abortion.—Edward Anderson (*Maryland Medical Journal*) considers ergot unsatisfactory in cases of incomplete abortion because it causes as forcible contractions of the cervix as any other portion of the uterus. Quinine acts chiefly on the fundus. He first administers six grains of quinine at once and then three grains every hour until the womb is completely emptied, which he has never found to fail to occur in a few hours. This practice Anderson has constantly followed for seven years. A compound cathartic pill will aid in the expulsion of retained products of conception. He has always found this treatment successful.

Ataxia.—The *Medical Press and Circular* says the most modern treatment of locomotor ataxia is that of Lortal-Jacob, and consists in dilatation of the urethra. Lesions have been found in the urethra of ataxic patients who had urinary trouble, but also gastric and rectal lesions which provoked, by irritation, similar attacks. Treatment of these lesions will improve the general condition by suppressing the irritating effect of these reflexes and the patient will experience much relief. The relief is obtained by dilating the urethra, the rectum, or the pylorus. Lesions of the urethra are particularly observed in cachectic persons, who walk with great difficulty, and who have been afflicted for a number of years.

Cough in Advanced Pulmonary Tuberculosis.—J. Douglas Blackwood (*J.A.M.A.*) had his attention called by a patient to the fact that when he took aspirin in the evening his cough was much relieved and he passed a more comfortable night. Trial was then made on several other cases, and in every case the patients reported favorable results. Dr. Blackwood gives 5 or 10 grains about 8 p.m., when there is excessive cough at night, and the smaller dose is often sufficient and not so liable to cause a night sweat.

Bronchial Asthma.—A. Latham (*Practitioner*) says that light cauterization of the nerve of the septum, in suitable cases, adequately carried out, produces great relief in a large proportion of cases. Whilst it does not cure it may give relief for several years. In any case of asthma inquiry should be made as to the possibility of dust being a contributing factor. The nose should always be carefully examined.

Profuse Kidney Hemorrhage.—Herman L. Kretschmer (*J.A.M.A.*) reports remarkable results by treating a case of profuse, painless hematuria with injections of epinephrin (adrenalin, P. D. & Co.) directly into the pelvis of the kidney through the ureteral catheter. Five c.c. of a solution consisting of fifty per cent. adrenalin and fifty per cent. salt solution were injected in the case treated, and the patient put to bed. The next day the hematuria had indirectly diminished. Three days later a similar amount was injected with a resulting marked diminution in the amount of blood in the urine. Four days later, as there was still some blood, a similar injection was administered. The next day the urine was perfectly clear to the naked eye. Hugh H. Young, of Baltimore, has reported a somewhat similar case.

Nephritis.—Milton Goldsmith (*J.A.M.A.*), says all cases of nephritis may be classified as tubular, vascular or azotemic, and this classification is valuable from the point of treatment. Whilst cases may be encountered in which a combination of types exists, one type will predominate and indicate the special line of treatment. This treatment should aim to spare that part which is incapacitated. In tubular nephritis, the chloride should be excluded, nitrogenous foods in the azotemic variety, fluids restricted or excluded in the vascular form.

Moist Dermatoses.—C. J. White (*Jour. Cutaneous Dis.*) believes in the great value of bland, antiseptic, absorbent powders, such as borated talc, for external use in treating certain moist dermatoses. The patient is put to bed in the acute stages, on an air cushion, if dorsal lesions, and kept recumbent all the time, even during defecation, urination and eating, which is insisted upon until the moist surfaces have ceased to appear. Every lesion on the body is thoroughly sifted with powder as often as any moisture shows itself, and, if the disease affects the scalp, the hair must be sacrificed. The patient should be naked in bed, the sheet and blankets supported on a frame, so that nothing touches his body. Surfaces should not be allowed to touch each other, much powder being dusted between them. If crusts heap up they must be removed and the drying process instituted again. By this method of treatment bacterial growth is inhibited, the object being to prevent heat and moisture for their development.

Ingrown Toe-Nail.—T. L. Deavor (*Am. Jour. Surgery*) for some time has been removing the entire nail with complete destruction of the matrix, so that the return of the nail is impossible. The results have been excellent. Cocaine may be satisfactory, ether better. Chloroform cautiously, as disasters in such a simple operation leave lasting impressions. First he excises a V-shaped section from the region of the root, and the soft parts turned back in all directions, exposing the limitations of the nail. The nail is then removed, and by cutting and scraping the nail bed is cleared of all tissue down to the periosteum so that every vestige of the root and matrix, with the transition cells about the nail bed are destroyed. The toe is dressed antiseptically and allowed to heal. By appropriate lateral incisions about the phalanx, and tight bandaging, the soft parts may be brought together so that when healing is complete, the area formerly occupied by the nail will be greatly reduced in size. The nail bed finally develops a fibrous covering which has all the protective qualities of a nail, without tendency to irritation. A mild amount of suppuration is to be looked for in most cases, but there should be no sequel.

Syphilis of the Nose.—Edward L. Ginsburgh (*Int. Jour. Surgery*) arrives at the following conclusions as regards the treatment of syphilis of the nose: In the primary stage of syphilis, salvarsan or neosalvarsan is the most valuable remedy, and repeated intravenous injections may abort the disease. The treatment is more effective when a combination of salvarsan or neosalvarsan with mercury is employed. We must retain mercury because its usefulness is not diminished by salvarsan or neosalvarsan, as it can be employed when their use is difficult. The local treatment, by means of cleansing solutions and powders, is very important and should be very thorough.

Cold Abscesses.—F. Pohl (*Zentra. für Chir.*) uses phenol and camphor as follows: Thirty parts phenol, sixty parts trituated camphor and ten parts alcohol. This mixture is injected directly into the cold abscess, as well as into old rebellious effusions and destructive inflammatory processes in joints, and recurring rheumatic joint affections displaying a tendency to develop into arthritis deformans. The camphor seems to annul the corroding action of the phenol. He has given the injections at intervals of two, four or eight days, never going above the dose of two to five c.c. There have never been any by-effects excepting slight carboluria.

Protoclysis.—Geo. H. Tuttle (*Int. Jour. Surgery*) thus describes a new method which will maintain the solution at body temperature for hours continuously. The device consists in placing a two-quart heating bag near the patient's rectum, through which the salt solution pipe passes, as in a hot water bath, overcomes the injurious effect of stasis and prevents the great loss of heat from the pipe, as in other methods. In this method the temperature of the saline as it enters the rectum, at first, when the heating bag has just been filled, is about 108 degrees F., from which it drops gradually in an hour and a half to 98 degrees, when the heating bag is refilled at 140 degrees F., and the rectal temperature returns to 108 degrees F. The results have been proved for six hour periods in four separate trials. This apparatus has been tried in some great hospitals, and the good results verified.

Radium in Surgery.—Howard A. Kelly says radium is destined to cure 96 per cent. of skin cancer, recurrent uterine cancers if taken early, as well as some cases of rectal cancers. It also acts most favorably upon parotid growths. Some cancers of the lip and tongue and breast may also be cured by it. There is a positive action on sarcomas, and on other fibrous and epithelial growths, on the surface of the body. One of its best effects is seen in curing angiomas, even large vascular growths which cannot be treated surgically. It stops uterine hemorrhage, checks fibrous growths, cures obstinate pruritus of vulva and anus and relieves some forms of pelvic inflammation. It is destined to have a definite field of usefulness in exophthalmic goitre.

Morphinism.—Maurice Page (*Bull. Médicale*) lays stress on the psychic distress in the withdrawal of morphine from an isolated patient. To avoid this, the patient should be kept in ignorance of the rapidity of the withdrawal of the drug. He cannot tell himself. In this way most patients can be brought down to sterile injections of sterile water, without knowing it, in from three to four days. The period, however, varies with different cases. In thirty cases treated by him, Page states the minimal time was four days, the maximal thirty-one days. Of these, twenty-two had taken the drug for two years. Twenty-five took more than ten grains daily, and fourteen took other drugs as well. Eighteen, two years after treatment, had not returned to morphine.

Narcotic Addiction.—Alexander Lambert (*J. A. M. A.*) says the alcoholic or morphinist is a man acutely or chemically poisoned and that these patients smoke to excess. Their only chance is to stop tobacco and then they must be unpoisoned. The treatment briefly is the persistent administration of belladonna mixture in small doses and thorough elimination by some form of mercury. The mixture is as follows:

In making the mixture a 15 per cent. tincture belladonna must be used.

In Lambert's personal experience about 75 per cent. remain free from further addiction.

Fracture of Neck of Femur.—Royal Whitman (*Med. Record*) gives an exposition of the abduction treatment of fracture of the neck of the femur. This should be adapted to the anatomy of the part. As one has no control over the inner fragment, adjustment can be assured only by contact of the outer fragment to it. In complete fracture of the neck of the femur, the patient is anesthetized and lifted to a sacral support, with the shoulders resting on a box of equal height, while the extended limbs are supported by two assistants. The assistant holding the injured limb then abducted it to the anatomical limit (normal inclination of the head of the femur of about 130 degrees permitted a range of abduction of the hip about 40 to 50 degrees, a movement directly checked by contact of the upper border of the neck with the projecting rim of the acetabulum) to illustrate the normal range, which varies in different individuals and at different ages, and indirectly to fix the pelvis by direct bony contact. The operator first flexed the thigh to disengage the fragments. The assistant then extended the limb, and by natural traction overcame the shortening, as demonstrated by the relation of the trochanter to Nelaton's line, and by measurement. He then, under traction, abducted it to the normal limit, the operator meanwhile lifting the thigh from beneath. Inspection should now show absolute correspondence between the extended limbs, as to abduction, rotation, length and position of the trochanters. In this attitude the injured part was securely fixed by a plaster spica, extending from the nipples to the toes. The sequence in manipulation is as follows: (1) Disengagement of the fragments. (2) Complete reduction of shortening by traction in the line of the body. (3) Abduction to a degree that should make the capsule tense. (4) Fixation in complete extension. So-called impacted fractures might be treated in the manner described.

Reviews

Periodicals—The attention of our readers is called to the advertisements of *Graphic*, *Daily Graphic*, *Bystander*, *Punch*, *Spectator*, *Illustrated English Magazine* and *Scientific American*.

The First Signs of Insanity. Their Prevention and Treatment.

By BERNARD HOLLANDER, M.D., Author of "The Mental Functions of the Brain," etc., etc. New York: Funk & Wagnalls Co.

The point of view from which this book has been written is not that of the special alienist inside the hospital for the insane, but the general practitioner, who first comes into contact with the early phases of mental disorder. Most men will appreciate nowadays that it is not necessary to await the verification of insanity in a patient to commence treatment, but rather to commence from the time the first symptoms manifest themselves. The first part of this book, therefore, deals with the various mental powers making up mind and character, their activities, under normal conditions as well as under diseased conditions. Part two deals with causes, such as heredity, disposition, mental and moral causes, inebriety, toxins, etc. Part three concerns itself with the treatment of mental infirmity and disease, while part four considers signs and symptoms, which should prove of the utmost value to general students and practitioners. To the medical practitioner, psychologist, sociologist and general student alike, the book should appeal as an interesting subject, dealing with the most far-reaching and dreaded of maladies. Now that the time is ripe for setting about preventive remedies in insanity, the book is a timely one.

Headache. Its Varieties, Their Nature, Recognition and Treatment. A Theoretical and Practical Treatise for Students and Practitioners. By DR. SIEGMUND AUERBACH, Chief of the Polyclinic for Nervous Diseases in Frankfurt. Translated by Ernest Playfair, M.R.C.P. One of the Oxford Medical Manuals, 208 pages (1913). Price, \$1.50. Toronto: D. T. McAtinsh & Co.

This volume will assist practitioners in arriving at a clear differential diagnosis of the individual varieties of headache and enable them to apply the proper mode of treatment. Teachers, and consequently students, are all too prone to pass over minor mala-

dies, especially as encountered in a well-organized outdoor clinic. More attention to outdoor clinical study would better qualify most young practitioners to enter upon practice, as there are minor malady can be best studied and the treatment of these patients better watched. This book, therefore, can be recommended to medical students primarily and to practitioners secondarily.

Text-Book of Ophthalmology. In the form of Clinical Lectures. By DR. PAUL ROEMER, Professor of Ophthalmology at Greifswald. Translated by Matthias Lanekton Foster. With 186 illustrations in the text and 13 colored plates. Volume III. Price, \$2.50 net. New York: Rebman Co.

This work is a most excellent one and appeals directly to the oculist, whilst to general practitioners who, from their location, are compelled to do a certain amount of eye work, it can be heartily commended. It is thorough and complete, the illustrations being especially beautiful, whilst the text is comprehensive and compelling.

Neurasthenia. By GILBERT BALLE, of the Faculty of Medicine, Paris. Translated from the Third French Edition by P. Campbell Smith, M.D. Third Edition. Illustrated with seven figures. Toronto: The Macmillan Company of Canada.

The third edition of this excellent book on a vexed subject has been rendered more complete on certain points and some new sections have been added. Some necessary additions have been made to the chapters on psychotherapeutics as well as on the dietetic regime of neurasthenics. Whilst not to be considered exhaustive, the book sets forth clearly and concisely those rules and facts essential to guide the physician in practice.

The Narcotic Drug Diseases and Allied Ailments. Pathology, Pathogenesis and Treatment. By GEO. E. PETTEY, M.D., Memphis, Tenn. Illustrated. Price, \$5.00. Philadelphia: F. A. Davis Co.

The author considers that drug habitués are blameless victims of disease, and as such entitled to as rational and skilful treatment as others with physical ailments, and with this all will agree. Indeed, one might go farther and say, even more so. The vital and

essential treatment advocated is elimination, in which, of course, there is nothing new. A feature of the book is the amount of space devoted to the treatment of acute ailments occurring in narcotic and alcoholic habitués, to the withdrawal after prolonged use during acute ailments, the management of infants born of drug-using mothers, the treatment of delirium tremens, and "sobering-up" the victims of acute alcoholism. We hope the book will prove of undoubted value to the profession, as all are aware of the vexatious trouble in handling these cases.

Diseases of the Eye. By GEORGE E. DE SCHWEINITZ, M.D., Professor of Ophthalmology in the University of Pennsylvania. Seventh edition; thoroughly revised. Octavo of 979 pages; 360 text illustrations, and seven lithographic plates. Philadelphia and London: W. B. Saunders Company. 1913. Cloth, \$5 net; half-morocco, \$6 net. The J. F. Hartz Co., Ltd., Toronto, sole Canadian agents.

This is the seventh edition of one of the best works published on ophthalmology. As usual with new editions of the most important books, the various chapters show careful revision, and new matter added to keep the book abreast of the advances in ophthalmology. It embraces reference to recent uses of vaccine therapy, indications for the use of salvarsan. Indeed, it has been the aim to embrace all the important advances in the past three years. Students, general practitioners and oculists will do well to possess a copy of this most excellent book.

Therapeutics of the Gastro-Intestinal Tract. By CARL WEGELE, M.D. Adapted and edited by MAURICE H. GROSS, M.D., and J. W. HELD, M.D., of the Har Moriah Hospital. With 52 illustrations in the text and 2 figures in colors on one plate. New York: Rebman Company.

In this book will be found, in addition to the therapy of the stomach and gastro-intestinal tract, additions on the diagnosis of the diseases of the oesophagus; diagnosis of the diseases of the gastro-intestinal tract; duodenal tube and its uses; diseases of the pancreas; X-ray examinations of the gastro-intestinal tract. There is also an especially good chapter for dietetic purposes. It is written in a neat, concise style, shorn of superfluous matter.

Sterility in the Male and Female, and Its Treatment. By MAX HUIJNER, M.D., New York; Chief, Genito-Urinary Department, Harlem Hospital Dispensary, etc., etc. New York: Rebman Company.

The material for this book has been gathered from the genito-urinary clinics of Harlem and Bellevue Hospitals, but mainly from the gynecological clinic of Mount Sinai Hospital Dispensary. As the book is the result of many years' original research and experimentation in the study of sterility of the male and female, it may be counted on to be a production of considerable value upon this subject. The detailed, yet concise, histories of individual cases adds much to its value.

Sex—Its Origin and Determination. A study of the metabolic cycle and its influence in the origin and determination of sex. The course of acute disease. Parturition, etc. By THOMAS E. REED, M.D., Middletown, Ohio, U.S.A. New York: Rebman Company.

It is not often a general practitioner writes a book upon medical subjects. We generally have to look for most of our knowledge to the specialists. For upwards of forty years, however, Dr. Reed has interested himself in the determination of sex, and has evolved the theory of the active and passive phases manifested during the progress of labor. The book is decidedly well written, and most interesting; particularly so as far as the author's own discovery goes. That he has kept abreast of the times upon the sex question is also quite evident. The book will be interesting not alone to scientists and obstetricians, but to all.

Applied Bacteriology for Nurses. By CHARLES F. BOLDUAN, M.D., Assistant to the General Medical Officer, Department of Health, City of New York, and MARIE GRUND, M.D., Bacteriologist, Department of Health, City of New York. 12mo of 166 pages, illustrated. Philadelphia and London: W. B. Saunders Company. 1913. Cloth, \$1.25 net. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

In the art of nursing, bacteriology plays its part, and for a correct understanding of it the nurse will find this book adapted to the purpose. It is general in its scope, and in no wise anything but what is required for the nursing profession. Suggestions for demonstrations are added to each chapter.

- A Reference Hand-Book of Gynecology for Nurses.** By CATHARINE MACFARLANE, M.D., Gynecologist to the Woman's Hospital, of Philadelphia. Second edition; thoroughly revised. 32mo of 156 pages, with original line-drawings. Philadelphia and London: W. B. Saunders Company. 1913. Flexible leather, \$1.25 net. Sole Canadian Agents, The J. F. Hartz Co., Ltd., Toronto.

In the second edition of this compact practical manual for nurses upon gynecology, the principal changes to be noted are details in technic, such as dry sterilization of gloves, iodine preparation of the skin, preparation for and after-care of major gynecological operations. There are additions on cancer of the uterus, vagino-fixation, acute gastro-dilatation. The book is the outcome of a series of lectures on gynecology delivered by the author each year at the Woman's Hospital, Philadelphia.

- A Course in Normal Histology.** By RUDOLF KRAUSE, A. O. Professor of Anatomy at the University of Berlin. Translation by Phillip J. R. SCHMAHL, M.D., New York. Part I. New York: Rebman Company.

In this work there are 30 illustrations in text and 208 colored pictures, arranged on 98 plates after the original drawings by the author. It is issued in two parts, Part I. being a guide to the technique of microscopy, fitted for both teacher and student alike. Part II. deals exclusively with histology pertaining to medicine. Either part may be obtained separately.

- A Course in Normal Histology.** A Guide for Practical Instruction in Histology and Microscopic Anatomy. By RUDOLF KRAUSE, A. O. Professor of Anatomy at the University of Berlin. Translation by PHILIP J. R. SCHMAHL, M.D., New York. Part II.

An examination of this book shows it to be an exceedingly fine one. The 30 illustrations in text and the 208 colored pictures are beautifully executed. They are arranged on 98 plates after the original drawings by the author. To teachers and students alike it will prove acceptable as a proper guide in Histology. Arranged in two parts; either can be purchased separately. Part I. is a guide to the technique of microscopy.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

Obstetrics: Arthur C. Hendrick.

Pathology and Public Health: John A. Amyot, Chas. J. C. O. Hastings, O. R. Mabey, Geo. Nasmyth.

Physiologic Therapeutics: J. Harvey Todd.

Psychiatry: Ernest Jones, W. C. Herrman.

Ophthalmology: D. N. MacLennan, W. H. Lowry.

Rhinology, Laryngology and Otol-ogy: Geoffrey Boyd, Gilbert Royce.

Gynecology: F. W. Marlow, W. B. Hendry.

Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.

Anesthetics: Samuel Johnston

VOL. XLI.

TORONTO, SEPTEMBER, 1913.

No. 3

COMMENT FROM MONTH TO MONTH

Prospective Medical Students, whether in the noonday languor of the harvest, the restful vacation from pedagogic duties, the cooling environment of a drug shop dispensary, or the shady verandah of some summer resort boarding-house, are giving consideration to the commencement of medical careers at the fall openings.

It would be well for them all, in choosing the practice of medicine as a vocation, if they could have placed before them some ice-box facts as to the status of that profession in the present day and its prospects in the immediate as well as the more distant future. It would be well for them all to understand first that success in the practice of medicine spells a strenuous life, which only comes to a few; that non-success means loss of time, money and physical energy which can never be brought back.

Let them study or be made aware of these facts from England and see the drift of the profession in the home country:

In the year 1891 the total number of medical students registered in Great Britain was 2,405; in 1912, 1,232. Wherefore this great falling off? First, medicine is an expensive calling. For five years the medical student has practically no earning capacity. In these five years many young men can lay a good foundation of a successful business career. At graduation the medical student begins, and in town or city it is long years—generally six to ten years in the latter, four or five in the former—before he has established himself.

Medicine is not a highly-paid profession. There is often much loss. There are no chances, as in business life. It is up hill and down dale, and plod, plod, plod.

With uncompromising bluntness the prospective medical students needs to be told that the practise of the profession no longer lures its votaries as of yore.

The rapid advancement of public health is cutting wide swaths in the professional income. Practice is beset upon all sides by all sorts of fakirs—not in the country, of course. There is more money and ease in city and town.

As a whole the medical profession is in a precarious condition—and in Ontario, reform (whatever that may mean) is in the air. The present is a good time to keep out.

Insanity steadily increases year by year in Ontario. Indeed, for that matter, an inspection of the statistics for the various provinces would probably show that it was increasing all over the Dominion. In a generation the number of insane has doubled in Ontario.

There is much talk and work in connection with the prevention of other diseases, but in this, the most lamentable of all diseases, there is practically nothing done in the way of prevention.

Scanning the causes in the report on another page, a goodly number is ascribed to moral causes, which, through proper understanding and education, might be prevented. The large number of 890 inherited a predisposition.

Marriage restrictions might be able to do good work here. Probably the time will come when preventive officers will bring within the public health domain the work which should be inaugurated in preventing insanity.

Spasmophilia. —Blühdorn (*Ber. Klin. Wochen.*) says that if lime be given in spasmophilia in nurslings in the hope of securing rapid action it should be administered in very large doses. The best salt is the uncrystallized chloride. Its action is prompt but transitory. In acute manifestations its action is valuable, but in convulsions one cannot dispense with chloral. It can be given over long periods and dieting need not be carried out to the usual extent.

Editorial Notes

CANCER KILLED 44,024 IN 1911

Cancer, which term includes malignant neoplasms of all kinds, caused 44,024 deaths in the registration area in 1911. The death rate, 74.3 per 100,000, was slightly lower than that for 1910, 76.2, but higher than that for any earlier year for which records are available. The highest crude death rate from cancer among the registration States was for Vermont, 101 per 100,000 population, a condition due to the relatively high age distribution of the population and the negligible amount of immigration. Other States with high rates were: Maine, 98.6; New Hampshire, 96.8; Massachusetts, 94.4; and Rhode Island, 88; while the lowest rates are shown for: Montana, 40; Kentucky, 42.7; Washington, 46.1; Utah, 51.9; and North Carolina municipalities, 54.8.

Among the cities of 100,000 population and over in 1910, in which many deaths from cancer occur in hospitals of patients brought there for operation, those having the highest death rates from this disease were: Albany, 122.8; Boston, 111.2; San Francisco, 110.6; Oakland, 105.3, and Cambridge, 104.1; those with the lowest rates were: Memphis, 51.9; Seattle, 57.4; Atlanta, 61.2; Detroit, 65.1; and Jersey City, 65.5.—*The Medical Times*.

ANNUAL REPORT HOSPITALS FOR THE INSANE, ONTARIO

The report on the operations of the Hospitals for the Insane in Ontario for the past year shows that insanity is costing Ontario practically a million dollars a year.

The total number of insane in the Provincial institutions is 5,726, of whom 2,769 are male and 2,957 female, a net increase of 86 for the year. The daily average for the year was 5,682, an increase of 90. The admissions for the year totalled 1,247, an increase of 103. There were 460 deaths, an increase of 45, and 570 discharged, an increase of 28 over the previous year.

DEPORTATIONS HEAVY.

The number of deportations shows an increase of 32, with a total of 258. Of these 66 were insane, 49 criminal, and 48 who were likely to become a charge upon the community.

There has been a steady growth in the revenue from the Hospitals for the Insane under the present Government, and the in-

creased income aggregates \$8,626. The total for the year was \$312,325, as against \$303,698 for the previous year.

BETTER FACILITIES.

Greater facilities for the care of the insane have resulted in improvements everywhere. An additional hundred acres have been purchased at Brockville, making 320 acres, and with the 640 acres at the new asylum at Whitby the needs of the hospitals will be largely supplied by the work of the patients. Manual and health work has been found to be most beneficial in lessening mental degeneracy, and under the direction of Superintendent Edwin R. Rogers, who has carried out the directions of the Minister in the Hospitals for the Insane, a high standard has been reached that is being adopted in many of the institutions of the United States and Europe.

WHAT INSANITY COSTS.

The cost of running the several Hospitals for the Insane for the past year was as follows: Brockville, \$123,426; Cobourg, \$25,813; Hamilton, \$194,756; Kingston, \$117,691; London, \$170,404; Mimico, \$110,883; Penetang, \$57,413; Toronto, \$163,378.

SALARY CHARGES.

The greater portion of the cost of these hospitals is the amount paid in salaries, as follows: Brockville, \$41,425; Cobourg, \$12,476; Hamilton, \$62,107; Kingston, \$43,699; London, \$60,741; Mimico, \$40,867; Penetang, \$23,913; Toronto, \$54,094.

GROWTH IN INSANITY.

There has been a steady increase in the number of cases of insanity. In the cycle of five years the average has been this:

1882 to 1886.....	2,775
1887 to 1891.....	3,201
1892 to 1895.....	3,865
1897 to 1901.....	4,604
1902 to 1906.....	4,933
1907 to 1912.....	5,517

WHY PEOPLE GO CRAZY.

The causes for insanity are numerous. In one year 41 men and 25 women were driven crazy in Ontario through business troubles or loss of friends; mental strain and overwork, 56 men and 81 women; religious excitement, 8 men and 9 women; love affairs, 7 men and 19 women; fright and nervous shock, 9 men and 13

women. The above are called "moral" causes and quite distinct from the physical causes. In the latter category 61 men and 9 women went insane from alcoholism; 21 men and 4 women from venereal diseases; 10 men from self-abuse; 27 men and 16 women from privation and overwork; 17 men and 12 women from epilepsy; 65 men and 57 women from senility; 5 men and 5 women from the drug habit, and 18 men and 15 women from bodily disease. There are a number of causes to swell the ranks of the female insane to which the male sex are not subject. Of the 1,247 cases admitted to asylums during the year, 890 inherited a predisposition.

NATIONALITY OF INSANE.

Of those admitted to the Provincial institutions, 849 were Canadian born, 180 English, 54 Irish, 56 Scotch, 20 Russian, 32 American, 6 Italian, 2 Assyrians, 8 Austrians, 14 Germans, 6 Japanese, 2 French, 4 Finlanders, 1 Hollander, 2 Hungarians, 1 Roumanian, 1 Norwegian, 3 from the West Indies, and 2 Bulgarians. There is an over-population of 126 in the Hospitals for the Insane in Ontario.

WHERE DEMENTED COME FROM.

York County supplied 361 of the inmates admitted last year, Middlesex 49, Lambton 34, Carleton 55, Wentworth 90, Renfrew 26, Hastings 26, Leeds 28, Waterloo 22, Simcoe 31. There seems to be an increase in the insane from the parts that are sparsely settled and where the comforts of life are not easily obtained.

Since the hospitals of the Province were opened there have been admitted 35,275 patients, of whom 17,276 were female and 17,999 male.

METHODISTS LEAD THE LIST.

In the matter of religion, the admissions for the year total 49 Baptists, 7 Congregationalists, 267 Church of England, 280 Methodists, 250 Presbyterians, 235 Roman Catholics, 51 other denominations, while 62 had no religious persuasion.

In the total of 35,275 there have been admitted 1,476 Baptists, 267 Congregationalists, 7,690 Church of England, 7,885 Methodists, 6,962 Presbyterians, 2,393 Roman Catholics and 3,506 other denominations.

Of the admissions of the year 653 were men and 594 women, of whom 543 were single, 587 married, 116 widowed and 1 divorced.

CANCER IN CANADA

It is not unlikely that an effort may be made in Canada to educate the general public with regard to the early symptoms of this disease on similar lines to those in the campaign against malignant maladies recently initiated by an influential section of the medical profession in the United States. The reasons for this supposition lie in the fact that Dr. Thomas R. Cullen, of Johns Hopkins University, in delivering the address in gynecology at the meeting of the Canadian Medical Association on June 25, made the propaganda for popular education as to the detection of cancer which is now being energetically carried on in this country a text for his discourse. Indeed, the address was more of a review of the proceedings in this direction in the United States than one on gynecology. Dr. Cullen, however, was well advised to impress the necessity for checking the inroads of malignant disease on a Canadian medical audience, and to point out how this could be brought about and was being brought about by the measures decided upon by the committee of eminent American surgeons appointed for the purpose as a result of the discussion at the Clinical Congress of Surgeons of North America, held in New York in November last.

In the first instance, Dr. Cullen drew attention to the fact that, contrary to common belief, cancer was not a disease of the blood, nor was it incurable. In their early stages these malignant growths could be removed with safety, and the life of the patient saved. The difficulty was that the average man or woman paid no attention to the early symptoms, and allowed the case to drift until it was too late.

It was in order, of course, to enlighten the community with respect to the early symptoms of the malady that the decision was come to, to make use of the lay press, magazines, and popular literature generally, as the most certain means of achieving this object. A most interesting account was given of the campaign that has been thus waged in the United States during the past few months, and, what is more to the point, Doctor Cullen vouched for the success of the campaign. Physicians from all parts of the country have reported that large numbers have come to them for treatment, urged to the cause by articles in the lay press and magazines describing the early symptoms of cancer in various parts of the body. The speaker wisely pointed out that if the women could be brought to recognize the necessity for having cancer cases diagnosticated early the men would readily follow suit. The woman is the health guardian of the home.

It goes without saying that a very large proportion of those suffering from cancer seek medical advice only when the disease has gained a firm foothold, and it is equally obvious that had the malady been diagnosticated in its early stages, the mortality from the disease would have been greatly lessened. The argument, then, is logical and reasonable that if people, and especially women, were cognizant of the nature of the early symptoms they would seek skilled advice ere the time for successful treatment had passed. Even if some nervous individuals imagine that they have the disease when they are free from the taint, and seek professional advice when they have no cause for alarm, this drawback will be more than counterbalanced by the saving of health and life which will result from the successful treatment of those who were right in their surmise that their symptoms were those of malignant disease.

Viewed from this standpoint, the propaganda for educating the public as to the early symptoms of cancer appear to be justified. At any rate, the most eminent surgeons of the country are of this opinion. Doctor Cullen, at the end of his address, made an earnest plea that the Canadian Medical Association should inaugurate a campaign against cancer on lines similar to these in vogue on this side of the border.—Edit. in *N. Y. M. J.*

HEALTH OF VANCOUVER IN 1912

In the annual report of the Medical Officers of Health of Vancouver for 1912—Dr. Underhill still styles himself Medical Health Officer, although many in Eastern Canada employ the better English designation, "Medical Officer of Health," but then Health men, whilst enthusiasts, are yet conservative, as many are still found employing "unsanitary" for insanitary—there is much valuable information and a very considerable volume of important statistical data. The report complains of the manner in which tenement houses are being built, and, as well, the too great tendency to crowd buildings upon small space. Tenements, Dr. Underhill blames for the increase in still-births. Apparently, there are numerous accidents from bad gas-fitting, as it is suggested that power should be given for the inspection of all installations and a permit issued before gas is allowed turned on. Particularly interesting are the figures as regards typhoid fever. Vancouver has a population over 111,000, and is quite proud of her water

supply. In 1912 there were 163 cases of typhoid reported, of which number 64 occurred amongst residents, 99 having been imported. Refuse removal is not in a satisfactory condition. Residents are expected to pay for removal, and if they do not do so, then they must remove it themselves. A modern city like Vancouver should understand the very great importance of proper waste removal. Dr. Underhill advocates the formation of a branch of the Royal Sanitary Institute in Vancouver.

FURTHER CONTRIBUTIONS TO OUR KNOWLEDGE OF THE PERNICIOUS VOMITING OF PREGNANCY

Williams in the *Glasgow Medical Journal* for December, 1912, reaches these conclusions:

1. The underlying factor in all cases of vomiting of pregnancy is probably an imperfect reaction on the part of the mother to the growing ovum.

2. In most cases this is only a predisposing cause, while a reflex or neurotic influence is the exciting factor, and cure usually follows its removal.

3. Williams still holds to the classification of reflex, neurotic, and toxemic vomiting. Of these, the neurotic is the most and the reflex the least frequent type, while the toxemic is the most serious.

4. Pronounced toxemic vomiting is accompanied by characteristic lesions and profound changes in metabolism.

5. The significance of a high ammonia coefficient is not specific. It may be a manifestation of toxemic vomiting, of starvation, following neurotic vomiting, or of an acidosis due to various causes.

6. It should be regarded merely as a danger-signal, while the differentiation between the various types is possible only after careful clinical observation. If improvement does not promptly follow appropriate treatment, the existence of toxemic vomiting should be assumed, and abortion promptly induced.

7. In the absence of genital lesions, a low ammonia coefficient indicates neurotic vomiting, which can be cured by suggestion and dietetic treatment, no matter how ill the patient may appear.

8. In primiparous women vaginal hysterotomy is the most conservative method of emptying the uterus. Nitrous oxide gas or ether should be used in preference to chloroform for anesthesia.—*Therapeutic Gazette.*

News Items

Dr. Lockhart, Montreal, is spending August at Little Bic.

Dr. W. R. Coles has returned from London, England, to Regina.

The Saskatchewan Medical Association met in Regina, July 18th, 19th and 20th.

Dr. Maud Abbott, Montreal, has gone to attend the International Medical Congress.

Dr. Fred Parker, Milverton, Ont., has disposed of his practice to his partner, Dr. Tye.

Drs. J. T. Fotheringham, Helen MacMurchy and J. W. S. McCullough, Toronto, are in England.

Dr. N. T. MacEachern, Montreal, has been appointed Superintendent of the Vancouver General Hospital.

Drs. W. H. B. Aikins, H. A. Bruce, H. J. Hamilton, T. F. McMahon, and J. M. Cotton, Toronto, have gone to England.

The Canadian Public Health Association will meet in its third annual convention in Regina on September 18th, 19th and 20th.

Dr. J. W. MacNeill, of Hanley, Sask., has been appointed Superintendent of the Provincial Hospital for the Insane, at Battleford.

The death is announced of Dr. E. E. Hyde, for many years assistant to the editor of the *Journal of the American Medical Association*.

Lord Stratheona has donated \$100,000 towards a site for a drill hall for McGill University students. The Dominion Government will erect the building.

Dr. F. J. Shepherd, Montreal, has sailed for England.

Dr. G. C. Van Wart, Fredericton, has been elected 'President of the New Brunswick Medical Association.

D. T. McAinsh & Co. are now settled in their new premises, 4 College Street, Toronto.

Dr. A. T. Watt, Victoria, Superintendent of the William Head Quarantine Station, in an attack of melancholia, jumped from a third-storey window of St. Joseph's Hospital and was instantly killed, on the morning of Sunday, the 27th of July.

Dr. Fred. Fenton, Toronto, one of the leading practitioners of the younger generation, died of obstruction of the bowels, following an operation for appendicitis, on the 27th of July. The late Dr. Fenton was a graduate of Trinity Medical College of the class of 1892; served for a year as house surgeon in the Toronto General Hospital, and at the time of his death was senior obstetrician at St. Michael's Hospital. He was a lieutenant-colonel of the Army Medical Service. Dr. Fenton enjoyed the confidence of his fellow-practitioners in a marked degree, and was an able practitioner, obstetrician and surgeon. He was 43 years of age.

Ulcer of the Bladder.—L. Buerger (*J. A. M. A.*) states solitary ulcer of the bladder is very rare. Where there is vesical hematuria a careful search should be made for the presence of a simple solitary ulcer. In the treatment of this condition, as well as in tuberculous ulcer, after nephrectomy, the fulguration method should be tried, and failing, mercurial injections should be given.

Exophthalmic Goitre.—Scheslinger (*Ber. Klin. Wochen.*) reviews his twenty cases, and his experiences convince him that the sudden fatalities after operative treatment are due to absorption of thyroid secretions. This may be reduced to the minimum by reducing the raw surfaces. An extensive operation is not necessary to accomplish the desired result. It is better to err on the side of operating too soon than too late. Of the twenty patients, three were entirely cured, four immeasurably improved, and seven much improved. In two the affection returned to a slight extent, but then yielded to medical measures.



Are you particular as to the condition of the iron in your Bland preparations?

Frosst's Perfected Bland Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Publishers Department

PREPARE THE BABIES FOR HOT WEATHER.—During the month of June it was not a bad plan for the physician to take mental “stock” of the babies under his care, especially such as are bottle-fed, with the general idea of recommending such treatment as will tone up and vitalize those whose nutrition may be below par, so that they may enter the trying summer months in the best possible condition to ward off or withstand the depressing influences of extreme heat or the prostrating effects of the diarrheal disorders of the heated term.

Careful attention to feeding is, of course, a *sine qua non*, and the details of the infant's nourishment should be carefully investigated and regulated. But this is not all. Many bottle-fed babies are below standard from a hematologic standpoint. The marasmic anemic baby deserves special attention in the way of building up and restoring a circulating fluid which is deficient in red cells and hemoglobin. In the entire materia medica there can be found no direct hematic quite as suitable for infants and young children as Pepto-Mangan (Gude). In addition to its distinctly pleasant taste, this hemic tonic is entirely devoid of irritant properties and never disturbs the digestion of the most feeble infant. Being free from astringent action, it does not induce constipation. A few weeks' treatment with appropriate doses of Pepto-Mangan very frequently establishes sufficient resisting power to enable the baby to pass through the hot summer without serious trouble, gastro-intestinal or otherwise.

JARVIS SANITARY FILTER.—Having now used the Jarvis Sanitary Filter for two years, it is with pleasure we can testify to its continued good work. With its use there is always a good flow of, to the naked eye, pure water, quite clean, wholesome and sparkling. No turbidity has ever been noticed, and especially to be commended is the easiness of cleaning this filter. We would not care to be without a Jarvis Sanitary Filter after having had the luxury of one for two years, with the best satisfaction. Physicians should take the time and pains to investigate a filter of such undoubted good qualities. The large number in use in hotels, restaurants, colleges, departmental stores, etc., as well as in many physicians' homes, proves it is giving wide and continued satisfaction.



Motor and Travelling Coats Dusters and Rugs

Not factory-made garments, but cut and tailored by experts in the West-end of London

MOTOR COATS

Silk Paramattas, Gabardines, Homespun Tweeds and Cashmere cloths. Single and double-breasted styles with military collars and straps on cuffs. Greys, tans, fawns, drabs, greens and khaki colors. - **\$8.50 to \$30.**

MOTOR DUSTERS

Cotton, silk, linen, mohair and alpaca in loose fitting styles with plain or belted backs and wind shields in cuffs. **\$2 to \$15.**

MOTOR RUGS

Light and medium weights in broadcloths and homespuns in plaids and tartans. - **\$3 to \$10.**

**PANAMAS, BANGKOKS, SAILORS AND
SOFT BRAID STRAWS. - \$2 TO \$50**

Motor Caps and Gauntlets; Canes and Umbrellas

Fairweathers Limited

84-86 Yonge St., Toronto

MONTREAL

WINNIPEG

JAEGER GARMENTS AND HEALTH.—To preserve and protect health is the underlying idea in the creation of Jaeger garments. The originator, Dr. Gustav Jaeger, spent years and a great deal of money in satisfying himself and proving to others, that pure wool and pure wool *only* is the material of which underwear and clothing generally should be made. To keep the body uniformly warm, to prevent and avoid chills and to give comfort were the qualities which established the superior value of Jaeger Underwear. Physicians everywhere recommend pure wool for delicate people. Jaeger Underwear is made of the purest wool tested by the Jaeger Co.'s analyst for purity and quality—no other material is used. Special care is taken in the detail work of every garment. Other Jaeger garments, sweaters, motor coats, jackets, stockings, gowns, etc., are made on the same basic principle that pure wool is the safest and the healthiest fabric of which garments should be made. Every important expedition to the tropical or polar regions has been largely outfitted with Jaeger supplies. The sale of these goods is not confined to any country or any climate—it is world-wide.

THE MUSICAL RIDE.—Old favorite will again be in line at the C. N. E.—It wouldn't look like a Canadian National Exhibition without the Musical Ride. Those 32 wonderful dragoons on their spirited horses, whirling through mazy figures to the music of the band, are an old, old feature of the Big Fair, but a feature of which the great amusement-loving public never wearies. Once and again they have been dropped from the programme, and the result has been a wail of disappointment, while proofs of their never-dying popularity are the roars of applause they always bring from the stand. They're coming again because the public demand them and refuse to take "no" for an answer. And, moreover, they are bringing new figures that promise to make them more popular than ever.

TREATMENT OF URTICARIA WITH EPINEPHRIN.—Swann, of New York, publishes the results of the administration of epinephrin subcutaneously in six cases of urticaria. In all of these cases this treatment was followed by a rapid disappearance of the erythema and wheals. The preparation used was the 1:1000 adrenalin chloride solution given in a dose corresponding to 8 minims for

Take Your Home With You

Travel-comfort comes from the ability to take home-comfort with you.

The only way to enjoy the comforts of your home in hotel, cafe, restaurant or Summer resort is to have served simple, nutritious, wholesome foods that you are accustomed to eat in your own home.

You can take your home with you by eating

Shredded Wheat

served in the way you have it at home—heated in the oven to restore its crispness, with hot milk and a little cream poured over it.

If you like it with sliced peaches or other fresh fruits and cream be sure and have it served the way you like it.

Two biscuits, with fresh fruit and cream, make a perfect meal for the hot Summer days and will supply all the strength-giving nutriment needed for work or play.

*Shredded Wheat is ready-cooked
and ready-to-serve*

TRISCUIT is the Shredded Wheat Wafer, a crisp, wholesome, satisfying snack for luncheons, picnics or outdoor excursions on land or sea. Delicious when toasted in the oven and eaten with butter, soft cheese or marmalade.

Made only by

THE CANADIAN SHREDDED WHEAT CO., LTD. NIAGARA FALLS ONT.

Toronto Office: 49 Wellington St. East.



an adult of 140 pounds, this dose being repeated in ten minutes. The eruption disappeared constantly after the second dose; an improvement was seen eight minutes after the first dose, became most marked in from ten to twenty minutes, the eruption then disappearing with startling rapidity. There was no itching in from five to twenty minutes after the first dose.

Recurrence in these cases was apparently uninfluenced. The writer was not present in any instance where the rash reappeared, so that he could not test the treatment again under these circumstances. Whether or not repeated doses will relieve the condition for a longer time will be an interesting subject for study.

The rapid disappearance of the wheals in these cases is interesting in connection with recent studies of epinephrin, which have shown by experiments on excised peripheral arteries that contraction occurs when they are treated with highly diluted solutions, and that the degree of this contraction depends on the amount of contraction of the vessels when the treatment is given, the contraction from the treatment being much greater when the vessels were previously relaxed.

This remarkably speedy effect on the wheals of urticaria suggests its use in more serious conditions, notably those of angioneurotic edema, in which swelling of the epiglottis and glottis may endanger life. Here it is quite conceivable that epinephrin might act in the same prompt manner as it does upon the wheals in urticaria. Anaphylaxis, with bronchial spasm, and edema is another case in point. Epinephrin has been shown to be capable of relieving the asthma of anaphylaxis. It has also been suggested that epinephrin could be used as a diagnostic test to differentiate vasomotor eruptions from those of different origin, such as a serum erythema from that of scarlet fever.—*Boston Medical and Surgical Journal*, May 1, 1913.

DOZEN BAND CONCERTS EVERY DAY.—Great Musical Festival at this year's C. N. E.—The Irish Guards Band and Patrick Conway's Band will give music-lovers a chance to compare the best English and American bands at the Canadian National Exhibition, but they are by no means the entire musical programme. A score of the best Canadian bands have been engaged, and four bandstands will be almost constantly occupied. With a dozen band concerts every day, the Canadian National will surpass all former records for band music.

Laboratory Tests of BOVRIL

The stringent experiments made at the School
of Physiology, Dublin, proved :

1. That Bovril possesses remarkable feeding power ;
2. That it enables the system to extract more nutriment from ordinary diet than without its use :
3. That these two qualities give Bovril a body-building power of from 10 to 20 times the amount of Bovril consumed.

Dr. Deimel Underwear (LINEN-MESH)

The Dr. Deimel Underwear is the garment for people who desire to enjoy bodily comfort and cleanliness to a degree not obtainable from woolen or cotton underwear. For hot weather you need more than ever this cool, cleanly underwear. For the perspiring, overheated body, it is a refreshing luxury.

DEIMEL LINEN-MESH COMPANY

416 St. Catherine St. West.

MONTREAL, Can.

BRANCHES:

New York,

Washington, D. C.,

San Francisco,

Brooklyn,

Baltimore,

Detroit,

London, Eng.

We also sell the Dr. Deimel Linen-Mesh Supporters.

PAPAIN, the most important chemical constituent of the papaya, is the subject of a recent report by the American Consul at Colombo, Ceylon. Probably few of the travelers in tropical countries who enjoy the melon-like papaya realize that this fruit contains one of the most valuable digestives known to medicine, though the natives of the Orient, especially in Southern India and Ceylon, use the fruit almost universally to prevent dyspepsia. There are several varieties of *Carica papaya*, and the papina obtained from the different kinds varies accordingly, the best being that derived from the male trees of a hybrid variety occurring in Ceylon. The digestive and disintegrating properties of papain are shown by the fact that the native cooks in Ceylon wrap tough meat in fresh papaya leaves to make it tender, or apply a small quantity of the milky juice of the plant to the surface of the meat, or put a piece of the green fruit into the raw curry when the meat will not boil soft. Papain is said to be capable of digesting ten to twelve times its weight of egg albumen at the temperature of the human body.—*Sc. Am.*

THE AFTER CARE OF CHILDREN'S ILLS.—With the advent of schooldays, and the daily association of many children in the classroom, the contagious diseases of childhood develop and multiply. The exanthemata, as well as diphtheria, whooping cough, etc., comprise a considerable proportion of the diseases that the family physician is called upon to treat during the late fall and winter months. The robust child, with but a mild infection, frequently recovers quickly and, perhaps, requires but little attention during the convalescent period, while the child whose general nutrition is "below par" usually emerges from the acute attack with a condition of anemia and general vital depreciation. In the large majority of cases it is undoubtedly wise to encourage and hasten convalescence by means of a palatable and efficient hematinic and general tonic. For this purpose Pepto-Mangan (Gude) is especially valuable. All children like it and take it readily; it does not irritate the digestive organs, but, to the contrary, increases the appetite and assists in the absorption and assimilation of the child's nourishment. As it is non-astringent, it does not, as other ferruginous remedies do, cause or increase constipation. As Pepto-Mangan is prompt and efficient as a blood builder and general reconstructive, it should be preferred among children whenever medication of a general tonic nature is indicated.

Dominion Medical Monthly

And Ontario Medical Journal

VOL. XLI.

TORONTO, OCTOBER, 1913.

No. 4

Original Articles

THE CLINICAL SIGNIFICANCE OF THE AUTONOMIC NERVES SUPPLYING THE VISCERA, AND THEIR RELATIONS TO THE GLANDS OF INTERNAL SECRETION

BY LEWELLYS F. BARKER, M.D.

Professor of Medicine, Johns Hopkins University; and Physician-in-Chief,
Johns Hopkins Hospital.

When we consider how carefully the cerebrospinal nerves have been studied, and how important each small twig is for the clinical pathology of disturbances of sensation on the one hand or of motility on the other, and then turn to the paucity of studies bearing upon the nerves which supply the viscera, we cannot help being impressed with the contrast. The lack of knowledge in the latter domain is all the more striking when we recall that it is precisely with the viscera that we, as workers in internal medicine, are predominantly occupied; except for scattered and non-systematic observations, the field of visceral neurology has, clinically, until recently, remained practically unexplored. The nerves going to the internal organs have, however, during the past two decades, strongly attracted the activities of anatomists, physiologists and pharmacologists, and their researches have thrown a brilliant light into regions hitherto obscure. They have revealed a series of mechanisms which, though of considerable complexity, are proving to be of the greatest importance, not only for the functions of the viscera themselves, but also for those of the body as a whole. It turns out that the nerves supplying the viscera stand in a position intermediate between the cerebrospinal nervous system and the internal organs; both the central nervous functions and the visceral functions are to a large extent dependent upon the mode of functioning of the visceral nerves. The state of tonus in the visceral nerves is

The Address in Medicine, delivered at the Annual Meeting of the Canadian Medical Association, London, Ontario, June 25th, 1913.

in turn apparently dependent first, upon the nerve impulses transmitted to them from the brain and spinal cord, and secondly, upon the action of chemical substances, including the so-called hormones, produced in various organs in the body, and especially in the glands of internal secretion. In the third place, the amounts of certain ions (Ca, Mg, Na, etc.) present in the medium through which the nerve terminals act upon the end-organ (smooth muscle; secreting gland) seem profoundly to influence the activities of the system concerned.

ARCHITECTURE OF THE VISCERAL NERVOUS SYSTEM.

It has been common to designate as the "animal," "somatic" or "cerebrospinal" nervous system the nerve paths related to the sense organs on the one hand and to the voluntary muscles on the other, and as the "sympathetic," "vegetative" or "visceral" nervous system the nerve paths which innervate the more automatic internal organs, especially all those organs containing involuntary muscle or secreting glands, or both. Thus the smooth muscle of the bronchi, of the stomach and intestine, of the blood vessels, of the skin, of the genital apparatus, and of the eye, are all so innervated, as are the secreting glands of the whole body—sweat glands, salivary glands, lacryman glands, mucous glands, gastric and intestinal glands, liver, pancreas, kidneys, and the glands of internal secretion.

The centripetal paths in the domain of the sympathetic nervous system are as yet but poorly understood, but the centrifugal paths, thanks to the researches of the histologists on the one hand, and the studies of physiologists like Gaskell, Langley, and their co-workers on the other, are now fairly well known to us. The centrifugal paths of the sympathetic system differ from those of the cerebrospinal system fundamentally in one point. In the cerebrospinal system the spinal cord is connected with a voluntary muscle fibre by means of a single neurone, the axis cylinder of which goes all the way from the anterior horn to the muscle without interruption. In the sympathetic system at least two neurones make up the path from the cerebrospinal axis to the smooth muscle or the secreting gland. Take, for example, the neurones connecting the spinal cord with a viscus. Of these two neurones, the first has a cell-body in the spinal cord, and its medullated axone (so-called preganglionic fibre) runs through the anterior root of a spinal nerve and through the white ramus communicans into the sympathetic system, there to pursue a course of variable length, sometimes passing through several sympathetic ganglia, in order finally to terminate in an end-

arborization (or synapse) upon the cell-body of the second neurone of the path, situated in some sympathetic ganglion. The axis cylinder of this second neurone is non-medullated and is known as a post-ganglionic fibre; it extends from the ganglion to the smooth muscle fibres, or to the secreting gland, which it innervates. Between the nerve terminal and the muscle or gland there seems to be an intervening substance (myoneural, or adenoneural); and in this medium the ions of calcium, sodium, etc., seem to exercise important functions.

It has long been known that many of the viscera receive nerve-impulses not only from the sympathetic system, but also through other nerve paths. Thus, though the heart receives impulses through the sympathetic which increase the rate of its beat, it also receives impulses through the N. vagus by which the rate of its beat is decreased. Similarly, the smooth-muscle of the gastrointestinal tract has long been known to be doubly innervated, contraction being stimulated through the N. vagus, and inhibited through the N. sympathicus. The smooth muscle which controls the size of the pupil is also doubly supplied; the pupil dilates when the cervical sympathetic is stimulated, and it contracts when the N. oculomotorius is excited. It remained, however, for later studies to demonstrate: (1) that such a double and reciprocally antagonistic innervation holds throughout the whole body as regards smooth muscle and secreting glands, (2) that each of the two innervating systems has a similar architecture, the centrifugal path in each system between the cerebrospinal axis and the periphery consisting of at least two sets of superimposed neurones. The two antagonistic systems taken together have been called by Langley the "autonomic nervous system." What was formerly called the sympathetic system is that part of the autonomic system which is connected chiefly with the cervical, thoracic, and lumbar portions of the spinal cord; while those parts of the autonomic system connected chiefly with the mid-brain (fibres running in the N. vagus in the N. oculomotorius), with the medulla oblongata (fibres running in the N. and N. glossopharyngeus) and with the sacral portion of the spinal cord (fibres running in the N. pelvici) are known as the "autonomic proper," or, better, as the "craniosacral autonomic system."*

In addition to these two sets of nerve fibres going to each viscus, some organs have an intrinsic nervous mechanism, partly subor-

*The anatomy and physiology are still further complicated by the fact that each of these two systems contains two sets of fibres—one "favoring" the main function subserved, the other "inhibiting" it. For simplicity of presentation, this point is not extensively elaborated in my paper.

dinate to the two autonomic systems, partly independent of them; the plexuses of Auerbach and Meissner of the intestinal wall may be cited as an example.

THE EFFECTS OF ELECTRICAL STIMULATION OF THE OPPOSING AUTONOMIC SYSTEMS.

In the region of the eye, electrical stimulation of the sympathetic causes dilatation of the pupil (M. dilatator iridis) and contraction of the orbital muscle, while electrical stimulation of the mid-brain autonomic (N. III) contracts the pupil (M. sphincter iridis) and causes accommodation spasm (M. ciliaris).

In the salivary glands, stimulation of the sympathetic arrests salivary secretion, while stimulation of the hind-brain autonomic (chorda tympani) causes profuse salivation.

In the cardiac area, electrical stimulation of the sympathetic (N. accelerator) causes tachycardia, while electrical stimulation of the hind-brain autonomic (N. vagus) causes bradycardia.

In the digestive system electrical stimulation (N. vagus) causes increased secretion and hypermotility, while excitation of the sympathetic diminishes secretion and leads to relaxation of the smooth muscle.

In the pelvic domain electrical stimulation of the N. pelvici causes contraction of the detrusor of the bladder, while electrical stimulation of the sympathetic relaxes this.

CHEMICAL STIMULATION OF THE OPPOSING AUTONOMIC SYSTEMS.

The effects of chemical substances upon the autonomic nervous system as a whole and upon its various parts have been studied especially by the pharmacologists and experimental physiologists.

Nicotine acts up on each of the two antagonistic autonomic systems, interrupting conduction at the junction (synapse) of the pre-ganglionic fibres with the cell bodies of the neurones which give rise to the post-ganglionic fibres in the ganglia.

Certain chemical substances, however, show an elective affinity for one or the other of the two autonomic systems. For the sake of brevity, the craniosacral autonomic system is usually referred to as the "vagal system," since it includes the autonomic fibres of the N. vagus, while the cervico-thoraco-lumbar autonomic system is usually referred to briefly as the "sympathetic system."

Epinephrin, or adrenalin, heightens the activity of the organs innervated by the sympathetic proper, but does not directly affect the functions depending upon innervation by the vagal system. The administration of epinephrin, therefore, is followed by symptoms similar to these yielded by electrical stimulation of the sym-

pathetic (vaso-constriction, tachycardia, mydriasis, dry mouth, glycosuria, gastro-intestinal hypomotility); those who believe that adrenalin acts upon the sympathetic nerve speak of it as a definitely sympathicotropic drug; others believing that it may act on the myoneural or adenoneural junction rather than on the nerve itself, prefer the term "sympathomimetic" to the term "sympathicotropic" or "sympathicotonic."

Certain other drugs act almost as electively toward the vagal system as does epinephrin toward the sympathetic. They are the so-called vagotropic drugs, and include two groups. The members of the first group, including pilocarpin, muscarin, physostigmin, cholin and digitalis, stimulate the vagal system; they are "vago-mimetic," producing effects identical with those which follow electrical excitation of this system (miosis, salivation, bradycardia, gastric hyperacidity and hypermotility, pollakiuria). The members of the second or "vagoparalytic" group, including atropin, hyoscin and euphthalmin, seem to paralyze the terminals of the vagal system and lead therefore to effects similar to those resulting from electrical excitation of the antagonistic sympathetic system (mydriasis, dry mouth, tachycardia, etc.)

As yet no drug has been discovered which paralyzes the whole sympathetic system comparable with the general exciting effect of epinephrin. A drug known as ergotoxin, which has been studied by Dale, seems to paralyze especially the so-called favoring sympathetic fibres, but not the so-called inhibiting fibres.

The vagotropic drugs also act somewhat less generally throughout the whole cranio-sacral autonomic system than does epinephrin on the sympathetic proper; thus atropin acts more vigorously on the autonomic fibres innervating the head and the heart than upon the fibres situated more caudalward; it has relatively little effect upon the sacral autonomic fibres innervating the pelvic viscera. Again, pilocarpin exerts its maximal effect upon secretory fibres, having relatively little effect upon cardio-inhibitory fibres. Muscarin, on the contrary, inhibits the heart vigorously, and may cause standstill through vagus irritation.

From what has been said, it is obvious that in studying clinically a phenomenon in autonomic domains, we have to try to find out whether, in the doubly innervated organ, the effect is due to excitation of one system or to paralysis of the other system. A tachycardia, for example, might be due to stimulation of the N. accelerans, say by coffee, or to paralysis of the N. vagus. Again, a dilated pupil may be the result either of sympathetic irritation or of oculo-motor (autonomic) paralysis.

In addition to chemical stimulation by substances of exogenous origin, the antagonistic autonomic nervous systems are constantly being influenced by substances of endogenous origin originating in the body metabolism. Among the sympathicotropic substances of endocrine origin may be mentioned: (1) epinephrin, (2) iodothyrim, and (3) pituitrin. Many believe that the epinephrin (adrenalin), which is being constantly formed in the medulla of the adrenals and in the chromaffine system generally, is responsible for a continuous excitation (or perhaps sensibilization) of the sympathetic system proper. At any rate, epinephrin produces effects in the body similar to the effects of electrical stimulation of the sympathetic; it is thus a "sympatho-mimetic" substance, in the sense of Barger and Dale. The exact place of action is still in dispute, though the evidence favors the view of Elliott that it is neither in the nerve itself nor in the end-organ, but in a special structure intercalated between the two—in the case of smooth muscle at the "myoneural junction." Less general in their effects, but also, apparently, sympathicotonic in nature, are the substances iodothyrim and pituitrin. Iodothyrim, a hormone originating in the thyroid gland, has an especial effect upon the thoracic and cervical sympathetic, and leads, when present in excess, to tachycardia, widened lid slits, exophthalmos and hypersusceptibility of the pupils to epinephrin. Pituitrin arising in the posterior lobe of the hypophysis, causes vaso-constriction (other than renal), polyuria, and vigorous contraction of the bladder and uterus.

Among the vagotonic drugs of endogenous (or endocrine) origin may be mentioned cholin, which is formed in the cortex of the adrenals. Experiments with cholin show that it possesses an action very similar to pilocarpin. It is certainly interesting that one small organ like the adrenal gland manufactures in its medulla the substance epinephrin (adrenalin) which is sympathicotonic (sympathomimetic) in its effects, and in its cortex another substance, cholin, which is vagotonic (vagamimetic) in its effects. Extracts of the whole adrenal would, therefore, contain two substances which, as far as the two autonomic systems are concerned, tend to neutralize one another.

There are probably other vagotropic hormones formed in the body, but our knowledge of them is as yet very meagre. We know, for example, that the internal secretion of the pancreas antagonizes epinephrin (or the formation of epinephrin), a fact doubtless of importance in connection with the pathology of some forms of diabetes mellitus. Again, in congenital insufficiency of the chromaffine

system (status thymico-lymphaticus), or in acquired insufficiency of this system (Addison's disease), the craniosacral autonomic innervations are in excess of the sympathetic innervations, many think because of deficiency in the supply of the sympathicotonic hormone, epinephrin.

In how far those sudden and violent excitations of the autonomic nervous system which accompany strong emotions are due to the intervention of the glands of internal secretion, and in how far they depend upon direct neural conduction from the brain, we are as yet but ill-informed. I need only remind you of the vaso-dilatation of the face in the blush of shame, of the stimulation of the lacrimal glands which yields the tears of sorrow, of the palpitation of the heart in joy, of the stimulation of the sudoriparous glands which precedes the sweat of anxiety, of the stimulation of the vaso-constrictors, the pupil dilators and the pilomotor in the pallor, mydriasis and goose-skin of fright, to illustrate some of these violent autonomic excitations. While we do not yet understand the exact mechanisms of association among the activities of the cerebrum, the endocrine glands and the reciprocally antagonistic autonomic domains and their end-organs, we can begin to see the paths which must be followed in order that more exact knowledge may be gained.

In the following table, compiled from the papers of several authors (Langley, Brodie and Dixon, Elliott, Dale, Meyer and Gottlieb, Eppinger and Hess, Fröhlich and Loewi, Biedl, Higier) the effects of electrical and chemical stimulation of the two autonomic systems are epitomized.

THE TONUS IN THE AUTONOMIC SYSTEMS, AND THE BALANCE MAINTAINED.

While the body is alive there is, constantly, a certain amount of activity in each of the antagonistic systems. In other words, a certain "tonus" prevails in each system, maintained (1) by stimuli arriving in the autonomic systems through neural paths, and (2) by direct chemical action (hormones) upon the systems. This matter of tonus* is very complex, since so many factors, neural and chemical, are involved, and since each system can be acted upon at any one of several points between the cerebral cortex and the end-organ (smooth muscle; secreting gland). The balance maintained normally between the two antagonistic systems is one of the most interesting of physiological phenomena. Think, for example, of the rate of the heart beat—how constantly it is maintained at a

*A distinction must, of course, be made between tonus and excitability.

Effect of sympathetic stimulation	Effect of		Organ	Effect of		Effect of Cranio-sacral autonomic stimulation
	Atropin	Epinephrin		Pilocarpin	Ergotoxin	
Stimulates (Th. I. and II)	Paralyzes	Stimulates	Sphincter } Iridis	Stimulates	.....	Stimulates (N. III)
Stimulates (Th. I-II)	Paralyzes	Stimulates	M. ciliaris	Stimulates	.....	Stimulates (N. III).
Constricts (Th. II-IV)	Paralyzes	Stimulates (Stimulates?)	M. orbitalis (Mueller's)	Paralyzes	Paralyzes	Stimulates chorda tympani
Constricts (Th. II-IV)	Constricts (?)	Dilates	Salivary glands	Stimulates	.....	Dilates (N. X).
			Cerebral bloodvessels	.....	.....	Constricts (N. IX).
			Oral bloodvessels	.....	.....
			Cutaneous bloodvessels of head	.....	.....
Constricts (Th. II-L. IV)	Dilates	Dilates	Coronary bloodvessels	Constricts	Dilates	Dilates (N. pelvicius).
Constricts (L. I-IV)	.....	Constricts	Intestinal bloodvessels	.....	.....
Stimulates (Th. II-L. IV)	Inhibits	Inhibits	Genital bloodvessels	.....	.....
Stimulates (Th. IV-VII)	.....	Stimulates	Sweat glands	Stimulates	Paralyzes	Inhibits (N. X).
Stimulates (Th. I-V)	Stimulates	Stimulates	Mm. arrectores pilorum	Inhibits	Inhibits	Excites (N. X).
Relaxes (Th. II-IV)	Relaxes	Relaxes	Heart muscle (face)	Excites	.....	Excites (N. X).
Paralyzes (Th. II-L. IV)	Paralyzes	Paralyzes	Esophagus	Excites	.....	Increases (N. X).
Diminishes (Th. II-L. IV)	Diminishes	.....	Cardia	Increases	.....	Increases (N. X).
Diminishes (?)	Diminishes	Diminishes (?)	Tonus of Stomach	Increases	.....	Increases (N. X).
Relaxes (L. I-IV)	Relaxes	Paralyzes	Peristalsis of stomach	Excites	.....	Excites (N. X).
Relaxes (L. I-IV)	Relaxes (?)	Relaxes	Secretion of stomach	Excites	.....	Excites (N. pelvicius).
Relaxes (Th. II-L. IV)	Inhibits	Relaxes	Motility of intestine	Cramps	.....	Cramps (N. pelvicius).
Inhibits (?)	Inhibits	Inhibits	Colon	Contracts	.....	Contracts (N. vagus).
Contracts (L. I-IV)	.....	Contracts	M. sphincter ani	Excites	.....	Excites (N. X).
Relaxes (L. I-IV)	.....	Relaxes	Gall bladder	Excites	.....	Excites (N. X).
			Pancreas secretion	Excites	.....	Inhibits (N. pelvicius).
			Bronchial musculature	Excites	.....	Contracts (N. pelvicius).
			M. sphincter vesicae	.....	.....
			M. detrusor vesicae	Relaxes	.....
			Uterus (pregnancy)	Contracts	.....
			Uterus (gravid)	Contracts	.....
			M. retractor penis	.....	.....
Contracts (L. I-IV)	.....	Contracts		.....	.....	Relaxes (N. pelvicius).
Increases (Piquère of Cl. Bernard)	.....	Increases	Sugar tonus	Diminishes	.....
Increases (Piquère vermis)	.....	Increases	Heat tonus	Dilates	.....
Contracts	.....	Contracts	Pigment cells			

given level in each individual when the body is at rest; the impulses arriving through the vagal system just balance those arriving through the sympathetic system, so as to maintain a rate of approximately seventy-two beats per minute. And a similar balance is maintained in other autonomic domains (e.g., pupils, bronchial musculature, gastric glands, gastro-intestinal muscle, sweat glands, bladder muscle, etc.).

This equilibrium is all the more remarkable when one considers how frequently it is temporarily upset in the exercise of physiological function. The play of the pupils with varying light, the watering of the mouth at the smell of savory food, the response of the heart to exercise and emotion, the flow of gastric juice on adequate stimulation, the opening of the bile duct at the call of the chyme, the transport of the colonic contents through one-third of the length of the colon through one vehement contraction every eight hours, the sudden relaxation of the sphincter and contraction of the detrusor of the bladder in micturition, the violence of contractions in the domain of the N. pelvici in parturition in the female and in ejaculation in the male, come to mind at once as examples of sudden physiological overthrow of balance.

AUTONOMIC DISTURBANCES MET WITH CLINICALLY.

Since 1910 I have been interested in examining the patients in the medical wards of the Johns Hopkins Hospital with especial reference to pathological disturbances of innervation in autonomic domains. One of my associates, Dr. Frank J. Sladen, the resident physician of the hospital, has been my co-worker in this study and we have already published a preliminary report on the subject in the *Transactions of the Association of American Physicians*.

Among the patients suffering from so-called functional nervous disorders (neurasthenic, hysterical and psychasthenic states) or from disturbances of the glands of internal secretion (the thyroopathies, diseases of the hypophysis, diseases of the chromaffine system, diseases of the genital glands, etc.), we have found a material very suited to our purposes, from which we have obtained a rich yield in "autonomic" symptoms.

On this occasion time will not permit of any extensive analysis of these cases. Suffice it to say that we have been impressed by the possibility of enrichment of the clinical histories in patients of these types by careful attention to the symptoms referable to abnormal autonomic innervation. We have been struck with the fact that when one abnormal autonomic sign is observable, a systematic examination of the viscera with autonomic innervations in

mind will almost always reveal a number of other deviations from the normal. The kinds of symptoms and signs observable may readily be deduced from an examination of the table given on page 116, in which the effects of electrical and chemical stimulation are recorded. For clinical purposes the following table of the more common symptoms resulting from pathological innervation of smooth muscle and secreting glands may be convenient.

a. SYMPTOMS AND SIGNS IN THE HEAD AND NECK.

(a) *The Eyes.* These include (1) myosis and mydriasis; (2) accommodation spasm and accommodation paralysis; (3) widened and narrowed lid slits; (4) Von Graefe's sign; (5) Dalrymple's sign; (6) infrequent winking (Stelwag); (7) insufficient maintenance of convergence (Moebius); (8) exophthalmos and enophthalmos; (9) epiphora and dryness of the eyeballs; (10) Loewi's test (positive adrenalin mydriasis); (11) Argyll-Robertson pupil; (12) anisocoria.

(b) *In the Nose and Mouth.* (1) excess of saliva with constant spitting; (2) dry mouth or xerostomia; (3) coryza vaso-motoria.

(c) *In the Skin.* (Vide infra.)

(d) *In the Meninges.* Pain of vaso-motor origin (cephalgia; hemicrania).

b. SYMPTOMS AND SIGNS REFERABLE TO THE RESPIRATORY SYSTEM.

(1) Laryngismus and laryngeal crises; (2) asthmatic attacks; (3) pulsus irregularis respiratorius; (4) Aschner's phenomenon (pressure on the eyeballs stimulating the first, the trigeminus and then, reflexly, the vagus and leading to arrest of respiration in the expiratory phase, with slowing of the pulse).

c. SYMPTOMS AND SIGNS IN THE CIRCULATORY SYSTEM.

(1) Tachycardia; (2) bradycardia; (3) changes in conduction time (dromotropic disturbances); (4) pulsus irregularis extrasystolicus; (5) angina vaso-motoria; (6) Aschner's phenomenon (vide supra); (7) changes in blood pressure; (8) peripheral hyperemias and anemias; (9) intermittent claudication; (10) dyspragia intermittens intestinalis; (11) acrocyanosis; (12) urticaria.

d. SYMPTOMS AND SIGNS IN THE DIGESTIVE APPARATUS.

(1) Esophagismus; (2) cardiospasm; (3) gastric neuroses (hyperacidity, achylia, gastrosuccorrhea, pylorospasm, gastrospasm, gastric atony); (4) atonic and spastic constipation, diarrhea nervosa, colica mucosa, and sphincter spasm.

e. SYMPTOMS AND SIGNS IN THE URO-GENITAL SYSTEM.

(1) Retention and incontinence of urine; (2) pollakiuria and tenesmus; (3) renal colic; (4) disturbances of libido, of erection, of ejaculation and of orgasm; (5) uterine atony and certain menstrual disturbances.

f. SYMPTOMS AND SIGNS IN THE CUTANEOUS SYSTEM.

(1) Goose-flesh; (2) trichopilar crises; (3) contractions of smooth muscle of tunica dartos and of nipple; (4) hyperhidrosis and anhidrosis (unilateral or bilateral); (5) bromidrosis; (6) vasoconstriction (pallor); and vaso-dilatation (erythema); (8) dermatographismus.

g. SYMPTOMS AND SIGNS REFERABLE TO THE HEMOPOIETIC, METABOLIC, AND ENDOCRINE ORGANS.

(1) Eosinophilia; (2) eosinopenia; (3) lymphocytosis; (4) status thymico-lymphaticus; (5) the pigmentations; (6) increased or diminished glucose tolerance (glycosuria); (7) increased or diminished fat tolerance (steatorrhea).

LOCAL AND GENERAL FORMS OF ABNORMAL VAGOTONY AND SYMPATHICOTONY.

Dr. Sladen and I in our studies have tried to find out whether or not the conception of a clinical abnormal vagotony or sympathicotony, as postulated by the Viennese clinicians, Eppinger and Hess, is justifiable. The experimental physiological studies and the pharmacological researches bearing upon the reciprocal control of the two antagonistic subdivisions of the autonomic nervous system to which I have already referred, having yielded such interesting results, an attempt at clinical application was almost certain to follow. For it would seem *a priori* not improbable that neural and chemical disturbances arising from various natural causes, and resulting in increased or decreased excitability or in too high or too low a tonus in either of the two systems, could be accountable for recognizable clinical symptoms.

While the writings of clinicians contain many instances of disturbance which we can now see belong to the autonomic domain, it is to Eppinger and Hess that we owe the establishment of the clinical conceptions of "vagotonia" and of "sympathicotonia"—conceptions which bring symptoms in widely separated parts of the autonomic domain together. They separate a so-called "vago-tonic constitution" from an outspoken clinical "vagotonia," the former being characterized by (1) a hyper-sensitiveness to pilo-

carpin, (2) a relative insusceptibility to sympathetic stimuli, and (3) various clinical symptoms indicating heightened tonus throughout the cranio sacral autonomic system. The sympathicotonic constitution, in turn, is characterized by (1) a hypersensitiveness to epinephrin, (2) a relative insusceptibility to pilocarpin and atropin, and (3) various clinical signs of heightened tonus throughout the sympathetic system proper.

Clinically, an outspoken case of vagotonia may include a varying number of the following signs (corresponding to stimulations of the craniosacral system):—small pupils, accommodation spasm, wide lid slits, salivation, epiphora, profuse sweating, reddened face, cold and moist hands and feet, bradycardia, pulsus irregularis respiratorius, bronchial asthma, eosinophilia, hyperacidity, gastrospasm, cardiospasm, pylorospasm, spastic constipation, biliary colic of nervous origin, anal-sphincter cramp, pollakiuria, and priapism.

In the studies made with Dr. Sladen, we found that in a certain number of cases a fairly general vagotonia or a fairly general sympathicotonia may exist, though local vagotonias and sympathicotonias are common; a large number of cases present vagotonic signs in one domain and sympathicotonic signs in another domain; and in some cases mixed signs in a single domain were met with.

We have used the pharmacodynamic method in the control of our cases. As a stimulant of the craniosacral (or "vagal") system we have given pilocarpin hypodermically in doses of 0.01 to 0.003 grams (grs. 1/6 to grs. 1/20), and as a paralyrant of the same system, atropin hypodermically in doses of 0.001 to 0.00065 grams (grs. 1/50 to grs. 1/100). As a sympathetic stimulant we have used epinephrin (adrenalin) usually in doses of 1 mg. hypodermically. Some use for these tests 1 mg. atropin, 1 cc. pilocarpin and 1 c.cm. of adrenalin solution (1:1000)*.

We found some patients who reacted in an outspoken way to both pilocarpin and epinephrin, each of the two systems seeming to be hypersensitive. The pilocarpin-sensitive patients react with salivation, sweating, nausea, epiphora, flushing, and a fall in blood pressure. They react to atropin by palpitation, dryness of the mouth and throat, and precordial oppression. The epinephrin-

*Higier recommends systematic pharmacodynamic testing as follows:

(a) Conjunctival instillation and subcutaneous application of epinephrin; (b) Subcutaneous injection of epinephrin, 0.01 mg. per kg. of body weight three hours after swallowing 100 grams of glucose (to determine glucose tolerance); (c) Subcutaneous injection of atropin sulphate, 0.01 mg. per kg. of body weight; (d) Injection of pilocarpin muriate 0.1 mg. per kg. of body weight.

sensitive patients on being given epinephrin react with tremor, sense of cold, rigor, glycosuria and rise in blood pressure.

An analysis of the various pharmacodynamic reactions observed in twenty-one cases in this way will be found in our published paper. In six patients who exhibited marked sensitiveness to pilocarpin, the vagotonia varied somewhat in different domains, though, usually, the vagotonic signs were most marked in that portion of the autonomic domain to which belonged the clinical symptom which had first attracted our attention. Thus, for example, in a patient suffering from bronchial asthma, certain other symptoms in the hind-brain domain were conspicuous. In epinephrin-sensitive cases, also, there was no sure way of prophesying in what domains the sympathicotonic signs would be most conspicuous.

We also studied the correlation between clinical symptoms and pharmacodynamic autonomic reactions in another way. Taking the cases which clinically showed various vagotonic manifestations, we found that in twenty-eight instances the response to vagotropic drugs was positive in eighteen. Again, in thirty-one cases in which there were marked sympathicotonic signs of one sort or another observable clinically, twenty yielded a positive reaction on subcutaneous injection of epinephrin. We came to the conclusion, therefore, that a conspicuous vagotonic or sympathicotonic sign, as far as the material thus far studied is concerned, may also be a mark of a pilocarpin-sensitive or epinephrin-sensitive individual in about 64 per cent. of the instances.

As to whether an exaggerated tonus (or excitability) in one of the reciprocal antagonistic systems is accompanied by a diminution of tonus (or of excitability) in the other, our results differ somewhat from those of other workers. We found a harmonious agreement between the pharmacodynamic reactions and clinical manifestations in only seven of nineteen cases. In two patients who exhibited pilocarpin-sensitiveness the sympathicotonic signs were nearly as conspicuous as the vagotonic signs, and in three patients sensitive to epinephrin the clinical signs referable to heightened tonus in each of the systems were approximately equal. In five patients sensitive to epinephrin it must be admitted that clinically vagotonic signs predominated.

It is obvious, therefore, that the mere demonstration of pilocarpin-sensitiveness or of epinephrin-sensitiveness does not permit, in every case, of an immediate conclusion regarding heightened tonus in the vagal or in the sympathetic autonomic system. Nevertheless the setting up of a vagotonic type and of a sympathicotonic type

as schemata seems to us valuable and stimulating to clinical observation. The whole domain of visceral neurology should from now on be cultivated with more fruitful results, now that we begin to understand the relations of the viscera and their innervations to the central nervous system on the one hand and to the hormones arising in the endocrine glands in the other. In the pharmacodynamic tests we have, to use Januschke's fine image, tuning keys by means of which we can operate upon the complicated stringed instrument of the body, and voluntarily make one string tighter to increase its vibrations, or another looser to dampen its function.

Our studies lead us to agree with those who urge that the conception of vagotomy be not too rigidly defined; we must be prepared to meet with exceptions as yet difficult to explain, and with deviations from the pharmacodynamical reactions which might be expected. Certain of the hormones may be less elective than the physiologists have taught us to believe; thus the occurrence of vagotonic signs mixed with sympatheticotonic signs in the forms of Basedow's disease accompanied by outspoken psychic disturbances (von Noorden, Jr., and others), demand more careful study. As Higier wisely remarks, the new conceptions of vagotomy and sympatheticotony will doubtless undergo evolution like the majority of clinical conceptions in neurology. We can, nowadays, make a diagnosis of tabes, Basedow's disease, Parkinson's disease, or of multiple sclerosis, even in the absence of one or more of the original pathognomonic signs, or cardinal symptoms, described by their discoverers.

For therapy, as well as for diagnosis, clinical men will do well from now on to give due consideration to disturbances of the visceral nerves. In no part of internal medicine can more be expected from pharmacotherapy; we have at our disposal a host of agents—nicotine, atropin, pilocarpin, physostigmin, colchicin, adrenalin, cocaine, ergotoxin, calcium, to mention only some of them—which have already been shown to act more or less electively; may we not hope that our clinics may find out how effectively to use them and others still to be discovered, in regulating the functions of the visceral nerves in at least many of the instances when they are disturbed?

REFERENCES.

Gaskell—On the structure, distribution and function of the nerves which innervate the visceral and vascular systems. *J. Physiol.*, Lond., 1886, vii, 1.

Langley—Art. "The sympathetic and other related systems of nerves," in Schaefer's Text-book of Physiology, 1900, ii, 516.

Sherrington—Art. "Sympathetic System" in The Encyclopedia Britannica, eleventh edition, 1911, xxvi, 287.

Bayliss—Die Innervation der Gefasse, *Asher-Spiro's Ergebn. d. Physiol.*, 1902, i, 346, and 1906, v, 319.

Brodie and Dixon—On the innervation of the pulmonary blood vessels; and some observations on the action of suprarenal extract. *J. Physiol.*, Lond., 1904, xxx, 476.

Elliott—The action of adrenalin. *J. Physiol.*, Lond., 1905, xxxii, 401.

Barker and Sladen—The clinical analysis of some disturbances of the autonomic nervous systems, with comments upon the so-called vagotonic and sympathetico-tonic states. *Trans. Assoc. Am. Phys.*, 1912, xxvii, 471-502.

Bauer—Zur Funktionsprüfung des vegetativen Nervensystems. *Deut. Arch. f. kl. Med.*, 1912, cvii.

Eppinger u. Hess—Die Vagotonie. *Samml. kl. Abh. ueber Pathol. u. Ther.*, etc., Berl., 1910, 1-99.

Meyer u. Gottlieb—Die experimentelle Pharmakologie, II Auff., Berl. u. Wien, 1911, 126.

V. Noorden, Jr.—Ueber vagotonische und sympathicotonische Typen von Basedow-Kranken. *Inaug. Diss.*, Wien, 1911.

Higier—Vegetative oder viscerale Neurologie, *Ergbn. d. Neurol. u. Psychiat.*, Jena, 1912, ii, 1-156.

Fröhlich—Die Pharmakologie des vegetativen Nervensystems, Wien, 1911.

Müller—Allgemeine Bemerkungen zur Physiologie des vegetativen Nervensystems. *Deutsche M. Wchnschr.*, 1911, xxxvii, 583-587.

Dixon and Ransom—Die elektive Wirkung von Arzneien auf das periphere Nervensystem. *Asher-Spiro's Ergebn. d. Physiol.*, 1912, xii, 765-794.

**ADDRESS IN SURGERY—CANADIAN MEDICAL ASSOCIATION—
FRACTURES AND THEIR TREATMENT***

By J. ALEX. HUTCHISON, M.D., L.R.C.P. & S. (EDIN.)

Professor of Surgery and Clinical Surgery, McGill University,
Surgeon Montreal General Hospital.

It is a great privilege to be permitted to read an address on surgery at the annual meeting of the Canadian Medical Association. When your president, influenced largely, I think, by kindly feelings towards myself, invited me to read the address, in a moment of vanity I consented, and since then I have felt the responsibility more and more as the time of the meeting approached. I wish therefore to express my appreciation.

In the choice of a subject, I have been influenced largely by the fact that during the past few years, more especially since the introduction of radiography, the subject of fractures and their treatment is, perhaps, of more general interest to the members of this association, than many other subjects which might have been considered.

Time will not permit me to go into details as to the particular treatment of a particular fracture. My object is rather to consider the subject as a whole, and to make a brief review of the various methods in use, presenting a few of my own observations gathered from twenty-two years' experience as a surgeon and assistant surgeon to the Montreal General Hospital, which institution, from its situation in the centre of the largest city in our country, and within half a mile of the head of ocean navigation, has perhaps, the richest clinic in fractures in Canada.

It has been stated that in the midst of all the wonderful advances in medicine during the past thirty years, and more especially in the advances in the surgical treatment of diseases, our knowledge and treatment of fractures is much as it was in pre-Listerian days.

An exception is admitted in the treatment of compound fractures. The work of Sir William Macewan, in Scotland, Sir Arbuthnot Lane, in England, and J. B. Murphy, on this continent, during the past ten years, however, has drawn the attention of the profession to this subject, with the result that many radical changes have taken place, not only in our knowledge of bone regeneration and repair, but also in our treatment.

*Selected from the Canadian Medical Association Journal.

How far the introduction of radiography is responsible for the change it is difficult to say. It has at least added enormously to our knowledge and precision. In a brief review of the subject it is necessary to deal first with:

Repair.

It was formerly held that the periosteum was the most important tissue and that largely from it bone repair took place. Our treatment, therefore, consisted largely in attempts to cover divided portions of bone with its periostial envelope. Where disease or injury to bone resulted in destruction of the periosteum and uncovering of the bone, we were taught to expect death of the bone at least in part. It is clearly demonstrated, largely through the experimental work of Macewan, that the periosteum itself cannot reproduce bone, and it acts as a mould, guiding and controlling new growth.

It has been a common clinical experience to find little or no callus thrown out over that portion of a fracture protected with untorn periosteum, or where a splint or other support pressed uniformly against a fracture with torn periosteum, and that in the same fracture with extensive laceration and destruction of the periosteum, producing large gaps, extensive, excessive, and irregular callus developed. Thus we learned the well-known rule of the carpenter, "the thinner the layer of glue the stronger the join," and efforts were carried out to limit and control excessive callus formation.

Our present knowledge of repair of bone may be briefly summed up as follows:

Hemorrhage, which is always present to a greater or less extent.

Inflammatory exudate of leucocytes, serum, and fibrin.

Proliferation of bone cells of osteo-genetic power (osteoblasts).

Formation of a matrix of proliferating blood vessels carrying osteoblasts.

Osteoblasts once formed proliferate rapidly, lime salts become deposited and new bone is formed.

During this process large cells, derived also from the bone cells, appear, called osteoclasts, which have the power of destroying bone, thus removing unnecessary callus.

These changes vary in individuals in accordance with varying conditions of health, and show greatest activity in the young. Thus we have great regenerative power in the young. Conversely, in older individuals, proliferation is less marked and the osteo-genetic cells more rapidly perform their evolution and become complete bone; proliferation ceasing before complete repair of a

destroyed portion of bone has taken place. Hence delayed, incomplete, and frequently non-union results.

While bone grows principally from epiphyseal cartilages, after their artificial removal, osteoblasts from the diaphysis in a measure fill the space, and while the process greatly lessens diaphyseal growth, it does not entirely cease.

The thanks of the profession are due to the British Medical Association for the report on the treatment of simple fractures recently published. This report has done much to remove many misconceptions, and I am glad to notice among its findings, that the non-operative treatment of fracture in children under fifteen years gives a high percentage of good results. Also that in children, with the exception of fractures of the forearm, open operation does not give better results than the non-operative.

Sufficient time has not yet elapsed since the publication of this report to allow a proper appreciation of all its findings. Much valuable knowledge, however, has been put before the profession. We may look forward with interest to the investigation of the American Surgical Association, the preliminary report of which was recently read at Washington by Dr. J. B. Roberts, chairman of the committee.

We may divide the treatment of fractures into four general groups:

1. Fixation with splints. Rest.
2. Fixation with splints and extension by weights as advocated by Buck many years ago, and also during recent times by Bardenheuer.
3. Ambulatory, mobilization, and massage.
4. Operative or open method.

From these various methods it is difficult to choose, but it is well to keep in mind their usefulness as adapted to the special features of a given fracture. Versatility is the successful instrument, and, for the average practitioner, no one plan should be adopted for routine practice; in fact routine practice may be said to be the cause of most of our failures. At the same time it should be the aim of each man to adopt a definite scheme of treatment and carry out its details sufficiently in each case to familiarize himself with its advantages and disadvantages.

Those of us who have had much to do with fractures become familiar with a certain line of procedure and gain a certain technique that may bring good results to us, which, when applied by others, may result in disaster. It cannot be too strongly stated

that for the man who sees only an occasional fracture the simplest form of splint, and rest combined with extension for certain fractures, will give the best results.

Splints and Rest.

This is the oldest form of treatment of fractures, and it is very accurately described in the earliest Egyptian medical records. The simplest forms are those made of a thin board, moulded plaster of Paris and poroplastic felt. As a rule, moulded splints, sold in sets for special fractures, are objectionable. Experience is required to apply them accurately, and, in the absence of the proper size, one is very apt to use the next available size, which may or may not fit the case. Moulded plaster of Paris, in the form of the Bavarian dressing, requires some experience to apply, but is a very desirable splint when accurately adjusted to the injured part. Poroplastic felt is an excellent, although somewhat expensive material, and is very easily moulded.

It is hardly necessary to point out the advantages of the use of such splints, chief of which is, that it enables one readily to expose the parts and replace them without discomfort to the patient, and at a cost of an additional strip of adhesive plaster or a bandage.

This method, combined with extension by weights, is perhaps the safest and more useful form of dressing for fractures of the long bones, more particularly of the femur, and I know of no better apparatus than Bucks' extension with coaptation splints and a long Liston splint. The dressing, while comfortable to the patient, necessitates almost daily attention, as the rapid atrophy of the thigh muscles requires that the coaptation splints be frequently tightened. As a rule sufficient weight is not applied. For an ordinary adult about ten pounds should be applied at first, rapidly increasing until spasm of the muscles has been completely overcome. This requires from four to eight days, and the weights can be increased up to thirty pounds. The weights need not be kept on continuously if the patient suffers from pain.

Coaptation splints should also be removed from time to time to allow massage of the limb, and more particularly gentle movement of the knee joint. After the spasm has been once controlled, the weights can be diminished. Care should be taken as has been frequently pointed out, that the splints should not be applied so firmly as to interfere seriously with circulation. In fractures of the shaft of the humerus, occasionally weights are required, but as a rule if the patient is allowed up every day, and the supporting sling is kept well down to the wrist and not near the elbow, the

weight of the dressings and the limb is sufficient to give the necessary extension.

Ambulatory.

I have had little experience with the ambulatory method in the treatment of fractures of the lower limbs. Their use requires very considerable experience. While the advantage to the patient of being able to be about and in the open air is undoubted, the control of the patient, and of his apparatus, requires more attention than is usually possible outside of hospital practice. My own practice is to get all patients, excepting those suffering from fracture of the femur, out of bed at the earliest date, while the patient is still in the fixation apparatus.

Bardenheuer Method.

This method, advocated many years ago by the great German surgeon, has many advantages, more particularly for those who have had an extensive experience. The apparatus is only comfortable when properly fitted and requires constant attention. When one has familiarized himself with the details, the treatment is an excellent one, and gives good results. However, it should not be used by a beginner. One great advantage of this method is, that the damaged limb is more or less exposed and the apparatus permits of lateral as well as rotatory traction, and Bardenheuer lays great stress upon the importance of taking advantage of this.

As a hospital man I should like to point out a not uncommon practice which has nothing to commend it, that of immediately replacing the displaced fragments of bone in cases of recent fracture, and applying an elaborate fixation apparatus, such as plaster of Paris dressing in cases which are immediately to be moved to a distant place, and where the patient will come under the care of another practitioner. Such cases seen as an emergency should be put up in the simplest form of dressing, and the patient should be told that the dressing is of a temporary character. It is well to supply a letter addressed to the physician who is expected to take subsequent care of the case, explaining what has been done.

Many instances have come under my notice where an elaborate dressing, such as I have described, has been applied, the patient departing at once and coming under the care of another practitioner. Often the second practitioner has not the moral courage to cut down the plaster of Paris dressing; he therefore assumes all responsibility of the case, and is certain to come into whatever censure may occur, without really having had anything to do with the actual replacement of the fragments and application of fixa-

tion apparatus. The laity should be taught that it is a fallacy to suppose that the so-called setting of a fracture should occur at once after an injury, without regard for the surrounding circumstances. It has been our common experience that many fractures are discharged with good alignment and apparently firm union, which seen many months later show marked angular deformity. While it is difficult to control the actions of patients, who have apparently fully recovered, more particularly those cases which are discharged from the public wards of the hospital and pass completely from the observation of the attending surgeon, we have perhaps not taken sufficient steps to protect our own reputations. All such cases should be kept as long as possible under observation, or until good bony union has taken place.

The old fashioned method of using a bedroom pillow supplemented with strips of board on either side is still an excellent dressing, especially in fractures of the leg. Plaster of Paris dressings are difficult to properly adjust, and should never be used until one has acquired considerable skill in their application. In my opinion there are certain parts of the body where plaster of Paris should never be used except by surgical experts, that is, in fractures of the shaft of the humerus and femur, and in obscure injuries about the elbow and knee joints.

Mobilization and Massage.

We owe very much to the French surgeon, Lucas Championnière, and while very few English-speaking surgeons have been daring enough to carry out his practice in detail, I think we have all appreciated the value of massage and frequent inspection of the injured limb, while at the same time using some definite fixation apparatus. Lucas Championnière has again and again drawn our attention to the fact, which I think had been previously mentioned by Thomas, of Liverpool, that too rigid fixation diminishes reparative bone production, damages the soft parts and stiffens the joints and tendons, so that the patient when at last freed from his dressings, suffers more in recovering the use of muscles and joints than from any other cause. The originator of this method has pointed out that the massage must be gentle and never carried to a point of producing pain.

Against this method, however, there can be little doubt that the early recovery which has been claimed for it is often at the expense of anatomical deformity. We must, however, always appreciate that to Lucas Championnière, more than any one man, we must acknowledge our thanks for the introduction of the combined methods now so universal on this continent.

The method of extension by the use of nails and traction apparatus, suggested by Steinman, and also the methods of Lambotte, of introducing pegs united to a frame held outside the wound, has very serious objections. The danger of an open wound through which is introduced a foreign object to the centre of a long bone, leaves a wide open door for infection.

Operative or Open Method.

No subject in surgery is engaging the attention of the profession at the present time more than the operative treatment of fractures, and before proceeding to discuss this method I will draw your attention to the following very important sections of the British Medical Association report:

Section 10. "It is necessary to insist that the operative treatment of fractures requires special skill and experience and such facilities and surroundings as will ensure asepsis, it is therefore not a method to be undertaken except by those who have constant practice and experience in such surgical procedures."

Section 11. "A considerable proportion of the failures of operative treatment are due to infection of the wound, a possibility which may occur even with the best technique."

Section 12. "The mortality directly due to the operative treatment of simple fractures of the long bones has been found to be so small that it cannot be urged as a sufficient reason against operative treatment."

Section 13. "For surgeons and practitioners who are unable to avail themselves of the operative method the non-operative procedures are likely to remain for some time yet the more safe and serviceable."

All operative procedures are becoming easier to an increasingly large proportion of our profession doing surgery, and the probability is that this applies also to the operative treatment of fractures. Mr. Robert Jones, of Liverpool, very tersely states "that the indications for operation will clearly differ from the individual standpoint of the surgeon and no rules can be laid down. The surgeon with the least mechanical resource will operate most frequently." Those who have seen Lane operate might be led to believe that the proceeding is a simple one, but this is not so; as many of you are aware, Sir Arbuthnot Lane has developed a technique and dexterity which perhaps is unequalled, therefore it follows that the proceeding is a rational one for him to carry out.

Personally I have had an open mind, and my practice has been to operate on cases which I was unable to reduce or retain in good position, more particularly in fractures in the upper part of the

humerus, upper part of the femur, both bones of the forearm and in spiral and oblique fractures of the tibia. My experience has been that the open method is a most satisfactory proceeding, and each operation becomes simpler to perform than the last. No one should operate without having a full supply of the heavy holding forceps, originally suggested by Lane and of which there are now a number of different types. The practice of Mr. Jones should also be kept in mind, that of keeping up extension by pulleys during the operation. A combination of these two measures makes the operation much easier.

The length of time for repair is undoubtedly longer, and each patient should be especially warned that the early mobility of the limb is due to the introduction of plates and not to bony union, so that such cases should be kept under observation for a longer period and external supporting apparatus should constantly be used. One case recently under my care has been very instructive, although the point is not new, having been referred to a number of times by others. A plate was applied to a fracture in the lower third of the tibia, and the patient discharged in a long plaster case. He returned once a month, the cast was removed and at first there was no movement; later, there was a little definite movement. An X-ray showed a rarification of the bone in the neighborhood of the top screw. I cut down and found the plate was almost embedded in new bone; the top screw was loose. I removed the plate and screws and put the patient in a new plaster cast; he returned in a month and had good firm union. This was a case where apparently the mobility, as suggested by Lucas Championnière, had finally resulted in union.

In the treatment of compound fractures I have found that the use of a plate or wrapping the bone in wires is of great value, but when such a proceeding is carried out the plate is only put in for the first few weeks to control the parts and must invariably be removed before the wound will, or is allowed to close. I have made it a practice in all cases of carrying out Lane's suggestion of covering the plate with muscle, fascia, or fat, and in one or two cases where this was not completely done, or where the parts tore away later, I found that I was obliged to remove the plate; in short the plate should never be allowed to lie exposed immediately below the subcutaneous tissue.

The Committee of the American Surgical Association, in considering the British report, points out that all methods of non-operative treatment have been grouped together in a comparison, and considers that a true estimate of the value of the non-operative

method should include a classification to the end that the best non-operative treatment could be laid before the profession. In this view I am in hearty accord, as I take it that the object of both reports is to place in the hands of the average man the most desirable method of treating non-operative cases.

The American report further points out that, on this continent, the usual treatment is not limited definitely to a fixed plan, but is a combination of several methods. The committee, therefore, in its primary report, believes that prolonged immobility with continued fixation by means of external splints, or apparatus, should be abandoned, and recommends that the treatment should depend upon three classes of practitioners:

1. The average general practitioner, unskilled in surgery as a specialty.
2. Surgeons with the usual facilities of small or cottage hospitals.
3. Surgical experts with adequate hospital facilities.

For the first they recommend the mixed method which is practically in use with most of us, laying stress on the importance of a general anesthesia for diagnosis as well as reduction, combined with the use of an X-ray. For the second class the report suggests that the operative treatment be restricted to especially rebellious fractures after the case has been watched for a few days. For the third group, early operation in all cases which cannot be properly reduced and maintained in good position.

Dr. Roberts has associated with him men of wide experience in the care of fractures and the final report will undoubtedly be a guide of great value.

In doing my first open operation for fracture of the patella many years ago, I was surprised to find the amount of hemorrhage and damage to the neighboring soft parts. Since doing the open method on apparently simple fractures of long bones, I have marvelled at the good results obtained in non-operative treatment in view of the extensive laceration of the soft parts, and the interposition of muscles and other tissues.

Radiography.

The value of the discovery of the X-rays in the diagnosis of fractures was early recognized, and it is hardly necessary at this date to refer to the great aid that has been given, not only in the diagnosis of the fracture, but as a guide to satisfactory treatment. It should be remembered, however, that many factors enter into the consideration of a given case. Two plates, one antero-posterior and one lateral, should invariably be used. The diagnosis should

not be limited to an examination of the plates but a careful examination of the injured limb should always be made. A second fracture in the same bone or a fracture of a neighboring long bone at a higher level may be present although not shown in the plate.

The possibilities for distortion in a given case depend upon the position of the fracture and the experience of the X-ray operator. The importance of this has not been properly appreciated, more particularly by general practitioners. Distortion of displacement is always present in fractures of the long bones and in fractures of the pelvis.

The public has much to learn in regard to X-ray distortion and it is difficult to know what our position should be in regard to showing plates to patients and their friends. These persons expect to see the plate and yet are not sufficiently experienced to appreciate the various conditions which exist in a given case. The impression is therefore left that the fractured bones may not be in good position, when in reality they are.

While it is quite possible to continue the treatment of fractures as in the past without the aid of X-rays, the general practitioner should not undertake the care of obscure fractures, more particularly those involving joints, without at least giving his patient the opportunity of going to some neighboring point where the use of an X-ray plate may be obtained. I, in common with others, have had a number of instances where acute synovitis has masked the presence of an important fracture. Only recently a case came under my observation, where the patient was unable to walk or to straighten out his limb some months after a fall which produced a severe synovitis of the knee joint. X-ray demonstrated the presence of an impacted fracture involving the articular surface of the tibia. I opened the joint and found a knob of callus in the centre of the joint displacing the semi-lunar cartilage, the knob was chiselled off and the cartilage removed.

Medico-Legal Aspects.

It is unfortunate that fractures have always been the source of much medico-legal anxiety to our profession. This has been made greater with the introduction of the use of X-rays. The time has come, I think, when this Association could quite properly investigate our position in regard to the courts and our patients, to the end that some definite legal method, fair to all parties, could be introduced into our court procedures. The situation could hardly be worse than at the present time where X-ray plates of fractures are passed about the court and interpretations taken therefrom, not only by the court, but by lawyers, jurymen, and others; this

without any effort being made to have the meaning of the plate explained by medical men competent to offer such information. As long ago as May, 1900, a report of the American Surgical Association stated that "Skiagraphs alone without expert surgical interpretation are generally useless and frequently misleading."

Dr. J. B. Murphy recently reported a dislocation of the shoulder joint where the head of the humerus was behind the glenoid fossa, yet the X-ray showed normal position. In a United States court recently a medical man was held responsible in damages to a large amount, not because the deformity resulting from a fracture was due to lack of skill, but because there was deformity, and the medical man had not recommended the use of an X-ray, although there was no X-ray apparatus in the town.

There is also the question of ethics to be solved. How far a medical man engaged in the practice of radiography is within his rights in selling plates showing fractures which have been under the care of other medical men without these medical men being consulted.

The development of workmen's compensation acts in our own, and other countries, where employers are responsible for the payment of compensation for injuries, makes the whole subject of fractures of greater interest than at any time in our history, and if the time has not yet come for defining our responsibilities it must be close at hand, and I trust this Association will not be behind other organizations in laying before the profession and the public the best means available for the treatment of fractures.

THERAPEUTIC NOTES

Sterility.—Rawls (*Am. Jour. Obs. and Dis. of Women and Children*) considers the intra-uterine stem gives as good results as cutting operations with less invalidism and no more liability to sequelae. It is applicable in all cases of antelexion with abnormal cervix except where the anterior wall is extremely shortened and the pathologic antelexion extreme.

Asthma.—S. H. Large (*Cleveland Medical Journal*) reports a case of asthma cure by the simple passage of a bronchoscope. The patient had had every possible operation on nose and throat. If, therefore, all lines of treatment fail to cure asthma, Large says to remember the bronchoscope.

Typhoid Fever.—I. Bram (*N. Y. M. J.*) uses moderate quantities of gelatine in typhoid fever patients and finds it tends strongly to the prevention of intestinal hemorrhage. Although it has been universally conceded gelatine possessed hemostatic properties its use in typhoid seems to have been overlooked. Gelatine also possesses nutritive properties. Pure, it is nearly colorless, odorless and tasteless. The colored ones on the market should be avoided. Bram further believes that olive oil should be employed throughout a case of typhoid. It should be given as a food in doses of one to three ounces, three times a day. As a laxative it has no equal in typhoid, and it is a valuable adjuvant in the diet. It also, from its bland laxative action, has a tendency to prevent hemorrhage.

Warts.—A. B. Cates (*American Practitioner*) cures warts by means of ethyl chloride, leaving no scar. By coagulating the blood in the vessels supplying the wart nutrition is shut off, and it consequently shrivels and drops off. The skin beyond the margin of the wart should be protected by a pledget of sterile cotton wet in cold water and drawn out in tape form and then wrapped around the wart. A fine stream of ethyl chloride is played over the wart until it is covered with frost. One or two applications will make most warts disappear. Moles and angiomas may be treated in a similar way.

Reviews

Handbook of Physiology. By W. D. HALLIBURTON, M.D., LL.D., F.R.C.P., F.R.S., Professor of Physiology, King's College, London. Eleventh Edition (being the Twenty-fourth Edition of Kirk's Physiology), with nearly six hundred illustrations in the text, many of which are colored, and three colored plates. Price, \$3.00 net. Philadelphia: P. Blakiston's Son & Co.

The reputation of the distinguished editor of this well-known and excellent book would be alone sufficient as a recommendation to teachers and students of physiology. Several sections have been entirely re-written, and the entire book has been thoroughly revised. There is a new chapter on reproduction and development. Practitioners who should keep themselves abreast of the times in physiology will find this admirable work in every respect complete and up-to-date.

Canada Monthly. London and Toronto: Vanderhoof-Gunn Company, Limited.

Amongst the many exchanges which come to our table, none is more welcome than that high-class Canadian periodical—*Canada Monthly*. With the August issue a new departure is noted, in that a change in form is presented—a 10 x 12 journal size superseding the old magazine form. The cover design is an artistic piece of work—a settler and wife in ox-wagon approaching the land of promise—the golden west. The frontispiece shows a challenging bull moose. In the place of honor is a highly entertaining article A Dollar and Costs—a pen picture by Robson Black of Toronto's noted Police Magistrate. The number is profusely and exceedingly well illustrated, and the special articles and short stories of the best. Physicians will find the *Canada Monthly* a welcome guest and in every way adaptable to the reception room table.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

Obstetrics:

Arthur C. Hendrick.

Pathology and Public Health: John A. Amyot, Chas. J. C. O. Hastings, O. R. Mabee, Geo. Nasmyth.

Physiologic Therapeutics: J. Harvey Todd.

Psychiatry: Ernest Jones, W. C. Herrman.

Ophthalmology: D. N. MacLennan, W. H. Lowry.

Rhinology, Laryngology and Otolology: Geoffrey Boyd, Gilbert Royce.

Gynecology: F. W. Marlow, W. B. Hendry.

Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.

Anesthetics: Samuel Johnston

VOL. XLI.

TORONTO, OCTOBER, 1913.

No. 4

COMMENT FROM MONTH TO MONTH

The Social Evil is engaging the attention of strong-minded, honest, capable men and women in different communities. It is still another evidence of the tendency of the age—the prevention of disease, this time morally as well as physically. In fighting the social evil there can be no question of half measures. It must be thorough enough to wipe it out entirely.

No one knows better than the medical man of its widespread dissemination in every urban community or of its wholesale and lamentable results amongst the innocent; and, as has always been evidenced in any and every campaign for the prevention of any disease, the medical profession stand well to the front in the attack.

In tentative campaigns where isolated communities endeavor to clean up their own back yards, there must always be differences of opinion as to how best to bring about the desired reforms. One will pound away for segregation, whilst another, equally honest in his endeavor, will denounce segregation. There must be no regulation of vice. Its only remedy is extermination.

Where segregated areas are tabooed, the insidious private apartment and private house nestles alongside the home and the church; and the prostitutes driven out of one city find “homes” in another, probably not far away, where the moral sense may perhaps not be so keen.

Another community will favor the reporting of all infected persons to the Medical Officer of Health; and the cry will then be raised that the medical profession has been roped in to becoming

amateur detectives for the balance of the community, and the innocent sometimes suffer as well as the guilty.

Whilst Montreal, Toronto, Winnipeg, Vancouver might adopt different plans for getting rid of the social evil, it must be quite apparent that the collection of essential facts regarding this vice evil should be and must be the foundation upon which to find a solution of the whole problem. No true Canadian could take much pride to himself if Montreal were free and Vancouver or Toronto seething in corruption. The prosecution of any campaign must be upon broader lines than mere municipalities.

It appears to be either a question for the federal or at least the provincial governments to tackle. The extent of the evil should be known in town, city and rural communities, its breeding grounds, its results amongst the guilty as amongst the innocent.

When the movement for the eradication of the social evil first becomes established upon proper lines then will it go on to success. Scattered, haphazard methods cannot prevail.

Warts.—Theo. M. Kendall (*Med. Press and Circular*) has always found the ionic application of magnesia to be the most effective, so far as the electric treatment is concerned. He has also had great success with a pigment of papain and borax. A digestive action is set up and the warts always disappear.

When physicians desiring to sell their practice and property—one or both—list the same with the Canadian Medical Exchange, 205 Yonge Street, conducted by W. E. Hamill, M.D., medical broker, they can rest assured that their offer will only be presented to registered bona fide buyers who have bound themselves, in writing, as to secrecy and not to offer opposition if they do not buy. Every legitimate safeguard possible is thrown about vendors, so that a sale is effected with a maximum amount of speed and a minimum amount of publicity. Eighteen years of experience in medical brokerage has evolved a system for selling medical practices as near perfection as possible, and a short cut to the goal desired is available to those interested. A request to the above address will secure full information as to details.

Editorial Notes

NOTES ON THE INTERNATIONAL MEDICAL CONGRESS

Twenty-eight nationalities represented.

Seven thousand five hundred medical men present.

H. R. H. Prince Arthur of Connaught.—May I remind you that although the Congress is meeting in London, it is not England alone which is the host. Canada, Australia, New Zealand, South Africa and India are represented on the various committees together with Englishmen. (Cheers.) So it is really the Empire and not the United Kingdom which is giving this Congress, thereby forging another link in the Imperial ideal. (Cheers.)

Sir Edward Grey: Science is, in the true sense of the word, international. . . . In regard to the science of medicine and surgery, we all have an individual interest in your work to an extent that hardly exists in the case of any other science. . . . To your science we have learnt to look for something that comes home to all of us individually still more. To your science we have learnt to look for the relief of suffering, which takes from life one of its greatest terrors. . . . As regards the science of medicine and surgery I do claim that the public is teachable and not only well-disposed but grateful.

Sir Thomas Barlow, President: It is impossible even to enumerate the varied ways in which medicine has co-operated with economics, social legislation and philanthropy, which we sum up briefly as public health. The school house and the scholars, the home of the poor, the colliery and factory, the dangerous occupations, the sunless life of the mentally deficient have benefited, and will benefit still more, by its friendly invasion. And I venture to foretell that not many years hence every department of life and work shall be strengthened and purified and brightened by its genial and penetrating influence. . . . Every day we gain fresh help from the auxiliary sciences, and we realize more and more the unity and the universality of medicine.

The institution of a Medico-Legal Senate in Great Britain as exists in Hungary to replace the present "expert" opinion was again discussed in the section of Forensic Medicine. Dr. M.

Sebachter read the paper on "The Royal Medico-Legal Senate in Hungary." The plan had been approved by the last medical congress at Madrid, but no other government had so far adopted the plan of Hungary. The Medico-Legal Senate in Hungary has now been working twenty-three years. It consists of a president, vice-president and twenty members representing all branches of medical science. The questions submitted by the law courts for arbitration were reported on by the various members of the Senate delegated for that purpose by the president, at the sittings of the Senate. After the points had been discussed the report was considered as expressing also the opinion of the Senate, if approved of by the majority.

Sir Malcolm Morris: Our mission is the service of humanity. And at this juncture we can do no greater service alike to medical science, whose votaries we are, and to mankind, whose servants we claim to be, than to urge upon our governments the imperative necessity of taking systematic and thorough and vigorous action to suppress one of the greatest scourges of the human race—syphilis.

The following American and Canadian surgeons had conferred on them the Honorary Fellowship of the Royal College of Surgeons: Dr. W. G. Crile, Cleveland; Dr. H. Cushing, Harvard University; Dr. W. J. Mayo, Rochester, Minn.; Dr. J. B. Murphy, Chicago, Ill.; Dr. Francis J. Shepherd, Montreal.

Radium.—One of the most notable exhibits in the Congress Museum was a series of drawings and photographs showing the progress that has been made in the treatment of cancer by radium and X-rays. The illustrations were so lifelike that they could readily be used to replace the living patient in the instruction of students. Many of the photographs were from the laboratories of Drs. Wickham and Degrais, Paris.

Professor Kitasato: It has been discovered that disinfection that would kill the plague germ had no effect upon the flea. The disinfection of plague, consequently, should be insecticidal as well as germicidal. In Japan "Disinfectol," prepared from the by-products of camphor had been applied with satisfactory result. The rat-proof arrangements should, of course, never be neglected, for the exclusion of rats would actually clear the house of fleas.

Professor H. Cushing: But in the search for knowledge, the investigator did not exempt himself as a subject of so-called vivisection when the lower animals did not suffice for his purpose; nor would he even hesitate to endanger his life, whatever might be the ethics of the question, if thereby information was likely to be gained concerning some disease fatal to his kind. Men in the London School of Tropical Medicine had not hesitated to submit themselves to experiment. It did not seem to be realized by the opponents of such form of research as entailed experimentation upon animals how few individuals undertook it, for the work required elaborate preparation and expensive and delicate apparatus. The opponents of research need have no apprehension on the score of the infliction of pain nowadays.

Sir J. Crichton Browne: While the preventive side of psychiatric medicine, founded on the etiological study of insanity, was its most hopeful aspect, its therapeutical side must not be neglected. Notwithstanding the vast sums expended on their construction, and their improved administration, the rate of recovery in our hospitals for the insane had fallen during the last fifty years. The lowering of the rate was probably in some measure to be ascribed to the cumulation of chronic cases, and to the increased resort to these hospitals, in the case of patients whose age and mental and physical condition precluded all hope of recovery. But, allowing for all that, it was clear that there had been no notable or efficacious advance in the remedial treatment of insanity during the period named, and that there was need for increased strenuousness in that clinical, pathological, and psychological investigation of it which a Congress like this must stimulate. The general health prospect of the country was brightening all round, but over our hospitals for the insane there was a settled gloom.

Doctors and Temperance.—Two hundred doctors drawn from all parts of the world breakfasted one morning at the Grafton Galleries, the guests of the National Temperance League. Where were the other seven thousand three hundred—the morning after the night before?

Professor Paul Ehrlich: To prevent the spread of, and to heal, infectious diseases was at all times the highest aim of medical aspirations.

St. Paul's Cathedral.—The congregation at St. Paul's included the President of the Congress (Sir Thomas Barlow). A few of the delegates appeared in their scarlet academical robes.

Preaching from the text, "That there may be no schism in the body," the Dean of St. Paul's, Dr. Inge, declared that in their private practice doctors to a large extent had succeeded to some of the functions of the mediaeval priest. It was they who now heard the confessions of anxious and conscience-stricken penitents. "They are the modern father-confessors," he said. "Men and women who formerly went to the clergy now go to them. They had earned and they had received the confidence of all who were in trouble about their bodies, and of many who were in trouble about their souls. No one can speak too gratefully of the way in which this work has been done—of the skill, of the kindness, of the understanding, sympathy, and the charitable but not too easy-going toleration of human infirmities which the patient can depend upon receiving from his medical adviser.

"Nevertheless," he proceeded, "I do wish to put this question: Does the medical profession as a whole take its proper part in influencing and guiding public opinion in those matters wherein its members alone can speak with authority?"

There was no class of men who, in private conversation, talked more sanely and wisely than the physicians. Their freedom from prejudice and sentimentality was most refreshing, "but when a measure such as the Mental Deficiency Bill is before the nation, where is the medical profession?"

All those problems of heredity and environment in connection with the improvement of the human stock known as eugenics were attracting increasing attention, even among the independent working class. Would it not be possible for the medical profession to recognize that they were called to an even higher duty than that of saving their patients' lives to the last possible day?

In all Utopian dreams much stress was laid on the future resources of medical science, and the history of the last 100 years justified the hope that far more might be achieved in that way for human welfare and happiness than by political or economic changes. They might look forward to the time when many diseases which now ravaged humanity would have gone the way of leprosy and typhus; when some morally unobjectionable way of regulating the population would have been discovered, when the average health, strength, and vitality of the people would be greatly improved, and when those crimes and vices which cropped up to-day would be comparatively rare.

The human race of the present was a mere caricature of what it might be in the future if science were allowed to pursue her

beneficent course unchecked by that false humanitarianism which was kind only to be cruel.

The Canadian members of the medical profession who have been attending the International Medical Congress at a meeting held at the Imperial Institute on Tuesday morning, August 12th, unanimously passed the following resolutions:

Moved by J. T. Fotheringham, Toronto, seconded by J. M. Elder, Montreal.

"That we wish to offer to the President, Sir Thomas Barlow, to the Secretary, Dr. W. P. Herringham, and to the whole committee our hearty congratulations upon the great success which this meeting of the congress has attained under their kindly and able administration. But particularly as members of the great British family do we desire to express the sense of familiar, homely intimacy which is felt by all of us, enhanced as it is by the presence of so brilliant a gathering of the savants of other climes and races. For, as Canadians, revisiting the Motherland *coelum non animus mutamus*, we deeply appreciate the real significance of the idea expressed by His Royal Highness Prince Arthur of Connaught in his gracious address of welcome, that all of us of the Empire stood together as hosts to all the rest of those attending. We noted with pleasure the repetition of this idea by the President in his address.

On behalf of the Canadian ladies, we wish to thank the committee of ladies here for the profuse and well-ordered hospitality shown by them, and the many arrangements made for the comfort and entertainment of our wives and daughters.

"And as we part, each to his own work across the seas, we beg to offer all our kind hosts and friends in London our cordial felicitations, thanks and good wishes."

Moved by Dr. Jas. Third, Kingston, seconded by Dr. A. A. Reeve, Toronto.

"That the thanks of the Canadian Section of the International Medical Congress be tendered Dr. W. H. B. Aikins, Toronto, for his able services as Secretary of the Canadian National Committee during seven years and member of the Executive Committee of the Seventeenth International Medical Congress."

Moved by Dr. H. A. Bruce, Toronto, seconded by Dr. H. J. Hamilton, Toronto.

"That the Organizing Committee for Canada for the Eighteenth International Medical Congress to be held in 1917 be constituted as follows: Chairman, Dr. W. H. B. Aikins; Secretary, Dr. H. B. Anderson; the Deans of the medical faculties of the Canadian universities and the Presidents of the Canadian Medical Association for the years 1916 and 1917, with power to add to their numbers."

News Items

Dr. Simon J. Tunstall, Vancouver, has returned from Europe.

Dr. J. L. Chabot, M.P., has returned to Ottawa from England.

Dr. Geo. W. Badgerow, London, England, is visiting in Toronto.

Dr. W. C. Cousins, Ottawa, who has been seriously ill, is recovering.

Dr. M. O. Klotz, Ottawa, has been elected President of the Ontario Medical Council.

Dr. Marcellus, late of St. Luke's Hospital, Ottawa, is Chief Medical Officer at Port Nelson.

Dr. Glen Campbell, Vancouver, has been elected President of the British Columbia Medical Association.

Dr. A. T. Lomer, Montreal, has returned from Europe and assumed his duties as Medical Officer of Health of Ottawa.

Dr. A. Campbell Geddes, who has been Professor of Anatomy in the Royal College of Surgeons in Ireland, has been appointed Professor of Anatomy in McGill University.

The old Janes Building, at the corner of King and Yonge streets, has been torn down to make way for a new skyscraper, and Dr. Hamill, Medical Broker, has been forced to find new offices, which he has secured in the Bank of Toronto Building, 205 Yonge Street, opposite Eaton's. New telephone number, Main 3375. Those interested should make a note of this, as this local will not appear again.



Are you particular as to the condition of the iron in your Blaud preparations?

Frosst's Perfected Blaud Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Publishers Department

SCHOOL FOR HEALTH OFFICERS, CONDUCTED BY HARVARD UNIVERSITY AND THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY.—Beginning this fall, Harvard University and the Massachusetts Institute of Technology are to maintain in co-operation a School for Public Health Officers. The facilities of both institutions are to be available to students in the School, and the Certificate of Public Health (C. P. H.) is to be signed by both President Lowell and President Maclaurin. The object of this School is to prepare young men for public health work, especially, to fit them to occupy administrative and executive positions such as health officers or members of boards of health, as well as secretaries, agents, and inspectors of health organizations. It is recognized that the requirements for public health service are broad and complicated, and that the country needs leaders in every community, fitted to guide and instruct the people on all questions relating to the public health. To this end the instruction of the new School will be on the broadest lines. It will be given by lectures, laboratory work, and other forms of instruction offered by both institutions, and also by special instructors from national, state, and local health agencies. The requirements for admission are such that graduates of colleges, or technical and scientific schools, who have received adequate instruction in physics, chemistry, biology, and French or German, may be admitted to the School. The medical degree is not in any way a pre-requisite for admission, although the Administrative Board strongly urges men who intend to specialize in public health work to take the degree of M.D. before they become members of the School for Health Officers. The Administrative Board which will conduct the new school is composed of Professor William T. Sedgwick, of the Massachusetts Institute of Technology; Professor Milton J. Rosenau, of Harvard; and Professor George C. Whipple, of Harvard. Professor Rosenau, of Harvard, has the title of Director, and the work of the School will be under his immediate supervision.

FILTER TALK NO. 1.—Filters were known long before bacteria were discovered. The ancient Egyptians had them. Any new filter will do good work, but the filtering medium gets dirty and contaminated till it carries more germs than the water it seeks to



Motor and Travelling Coats Dusters and Rugs

Not factory-made garments, but cut and tailored by experts in the West-end of London

MOTOR COATS

Silk Paramattas, Gabardines, Homespun Tweeds and Cashmere cloths. Single and double-breasted styles with military collars and straps on cuffs. Greys, tans, fawns, drabs, greens and khaki colors. - **\$8.50 to \$30.**

MOTOR DUSTERS

Cotton, silk, linen, mohair and alpaca in loose fitting styles with plain or belted backs and wind shields in cuffs. **\$2 to \$15.**

MOTOR RUGS

Light and medium weights in broadcloths and homespuns in plaids and tartans. - - **\$3 to \$10.**

**PANAMAS, BANGKOKS, SAILORS AND
SOFT BRAID STRAWS. - \$2 TO \$50**

Motor Caps and Gauntlets; Canes and Umbrellas

Fairweathers Limited

84-86 Yonge St., Toronto

MONTREAL - - - - -

WINNIPEG

purify; thus, while apparently removing dirt, the uncleanable filter is in reality a source of danger—worse than none—much worse. The problem hitherto unsolved has been the cleaning of the filtering medium. And there never was a fast *clean* filter till the *Jarvis*. After each cleaning it is really a new filter. We have solved this old problem, and it's a simple little process too. Call at the office and let us give you a demonstration, or write, or 'phone and let us send a representative to tell you all about it. Buy a *Jarvis* and *be sure*.

MORE PHYLACOGEN FIGURES.—“Case histories of 6,324 patients treated with Phylacogens have been sent to us by the attending physicians. They show 5,270 recoveries—83 per cent.” This statement has just been issued over the signature of Parke, Davis & Co., and a very impressive pronouncement it is. If there are members of the medical profession who have been wont to question the therapeutic efficacy of the Phylacogens, that “83 per cent. of recoveries” should quickly remove their skepticism.

THE LEUCODESCENT THERAPEUTIC LAMP should be in the office of every physician and in every sanitarium and hospital. Its great power to control pain, alone, should recommend it for hospital use. Its analgesic action is as safe as it is powerful and prompt.

The Leucodescent spectrum combines the thermic (stimulating, irritating, oxidizing), the luminous (nutritional) and the blue-violet or actinic (sedative, chemical, bactericidal) rays. These combined in one instrument make it of unusual and comprehensive value, and one indicated in an exceedingly large number of diseases.

Recent improvements have made possible the use of the thermic, luminous and actinic rays separately by means of color screens.

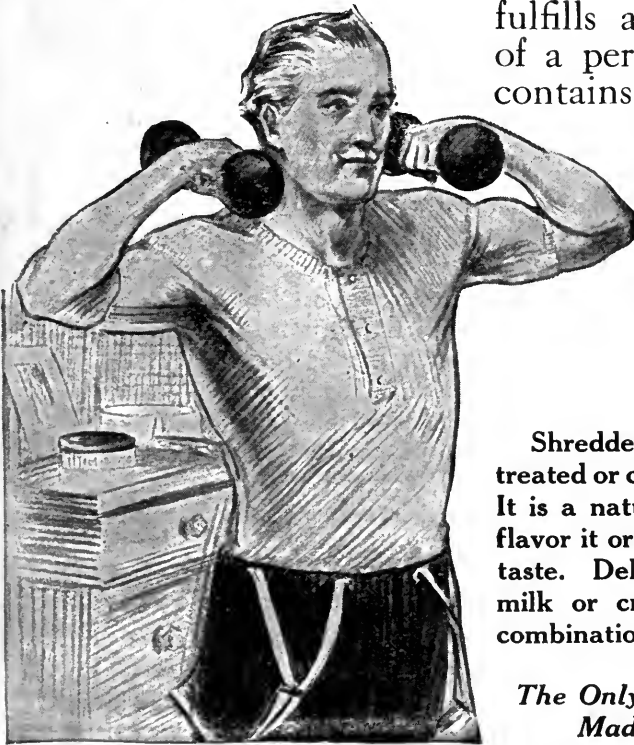
The Leucodescent Therapeutic Lamp is manufactured by The Leucodescent Lamp Company, Chicago, Ill.

THE TEST OF A TONIC.—The field and function of a systemic tonic is generally understood and appreciated by both physician and patient. To stimulate, whip or goad the vital processes is not to “tone,” but, on the contrary, to ultimately depress. A real tonic is not a mere “pick-me-up,” but some agent that adds genuine strength, force and vigor to the organism. The genuine tonic is a

Are You Up to the Mark?

You can't build the perfect human body through exercise alone. Mental and physical fitness comes through rational exercise combined with food that holds in well-balanced proportion all the elements needed for making muscle, brain and bone, prepared in such a form as to be quickly and easily appropriated by the human stomach.

Shredded Wheat



fulfills all the requirements of a perfect food because it contains all the necessary body-building elements prepared in a digestible form.

It is the whole wheat steam-cooked, shredded and baked.

Shredded Wheat is not flavored, treated or compounded with anything. It is a natural, elemental food. You flavor it or season it to suit your own taste. Delicious for breakfast with milk or cream or for any meal in combination with fresh fruits.

*The Only Cereal Breakfast Food
Made in Biscuit Form.*

Made only by
THE CANADIAN SHREDDED WHEAT CO., LTD., NIAGARA FALLS, ONT.

Toronto Office: 49 Wellington St. East.

builder or reconstructor of both blood and tissue. Any agent which will increase the power of the blood to carry and distribute the life-giving oxygen is a tonic in the best and truest sense of the word. Iron in some form is an ideal tonic, as it builds up the vital red cells of the blood and the hemoglobin which is their essential oxygen-carrying element. Of all forms of iron, none is quite as generally acceptable and readily tolerable and assimilable as Pepto-Mangan (Gude). It creates appetite, tones up the absorbents, builds the blood, and thus is a real tonic and reconstructive of high order. It is especially desirable because of its freedom from irritant properties, and because it never causes a constipated habit.

SHAKESPEARE'S ALLUSIONS TO SYPHILIS.—Sir Henry Morris states that there is ample evidence that during the Tudor and Stuart and Commonwealth periods of English history syphilis was rampant in England as well as in France and Italy. It is sufficient for proof to quote Shakespeare in regard to the first, and Wiseman in reference to the later periods. The word pox reminds one of the frequent use Shakespeare made of it. It occurs at least four or five and twenty times collectively in fifteen of his plays. He used it as a curse, or an imprecation of impatience or evil. Thus, Iago says to Roderigo, who talked of drowning himself, "A pox on drowning thyself." Sir Andrew, in "Twelfth Night," referring to a certain knight, who was a celebrated fencer, says: "Pox on't, I'll not meddle with him." In "Measure for Measure," Barnardine in his prison exclaims: "A pox on your throats! Who makes that noise there?" In "Love's Labor Lost" we find even ladies of quality—ladies in attendance on the Princess of France—making similar exclamations, such as "A pox of that jest!" In "All's Well That Ends Well" a French lord in a camp near Florence says of a soldier: "Let him fetch off his drum"; and he is answered by another French lord: "A pox on't, let it go, 'tis but a drum." In "Two Gentlemen of Verona" the servant of one of the gentlemen says to him of the other: "A pox of your love letters." In "Henry IV.," in "Hamlet," in "Cymbeline," in "The Tempest" and other plays there is similar employment of the word, which is equivalent to the "Damn" or "Damn it" of the present day. This use of the word seems to prove conclusively that syphilis was very common in Shakespeare's day, and that the constitutional and local symptoms of the disease must have been quite familiar to the man in the street and to the ordinary person in society. It is quite obvious from the context of several of the

The Remarkable Body-building Power of **BOVRIL**

In the experiments upon human subjects conducted under the direct control of one of the foremost physiologists of the day, and reported to the British Medical Association, Bovril was proved to possess the remarkable body-building power of from

10 to 20 times the amount taken

Bovril is the concentrated goodness of the best of beef. It is a wonderfully warming winter beverage; it builds up the weak constitution and strengthens the strong one; it guards against the grip; it checks colds and chills; it is cook's right hand in the kitchen; it is nurse's first aid in the sick room.

Buy a Bottle To-day

In the diagram the long block represents the body-building power derived from the amount of Bovril represented by the small block.

Dr. Deimel Underwear (LINEN-MESH)

FROM any point you choose to consider the subject, nothing WORSE was ever invented for a skin covering than wool in the form man gets it—non-absorbent—prickly—itchy—non-ventilating and shrinkable.

Can you imagine anything more uncomfortable to put next to the body? Yet a great many people wear it simply because they don't give the matter of underclothing much thought. What they do worry about are the Colds, Catarrh, Rheumatism, Bronchitis, etc., to which the wool wearing makes them subject.

If they thought about their underwear they would cease thinking about their health, because they would wear The Dr. Deimel Underclothing, which keeps the body dry, warm, comfortable and healthy.

Send for booklet and free sample of fabrics.

DEIMEL LINEN-MESH COMPANY

416 St. Catherine St. West.

MONTREAL, Can.

BRANCHES:

New York Washington, D. C. San Francisco Brooklyn Detroit London, Eng.

We also sell the Dr. Deimel Linen-Mesh Supporters.

passages in which the word occurs that it was the great-pox and not the small-pox which had given it currency, and to which allusion was made. For example, in "Pericles, Prince of Tyre," the virtuous Marina, the daughter of Pericles, who had been taken captive by pirates and sold to a brothel keeper, is cursed in the following manner by a Pander of the Bawd for not yielding her honor on the solicitation of the customers: "Now the pox upon her green sickness for me!" And the Bawd replies to him: "Faith, there's no way to be rid on't but by way to the pox." Shakespeare was quite alive to the pains of periosteal nodes, to tendon gummata, to ozena, to the loss of hair, to the voice changed by syphilitic laryngitis, and to the sallow, withered look of the skin of the face in late syphilis. He speaks of "a pox of wrinkles," and makes Timon speak to Phrynia and Timandra, in language which shows a considerable knowledge of the characters of secondary and tertiary syphilis.

THE INSPECTOR'S LIFE.—The policeman's lot, according to an old song, is not a happy one. No more, apparently, is an inspector's, or, for that matter, a Medical Officer of Health's. There are all sorts of worries and rudenesses to be encountered from the very moment one enters the service, and so many of these arise because we are compelled so often to tread on people's pet corns or to cause people to spend money. But it does not stop at worry and rudeness; there is danger as well. The person served with a notice or more than one notice, or the butcher from whom a seizure has been made, does not always rest contented with calling names. Sometimes he or she threatens, sometimes even does violence. There was, you will remember, the case in which the Food Inspector was nearly decapitated by an infuriated butcher, and quite often Food Inspectors have told me of how they have noticed certain butchers ostentatiously sharpening knives when they saw them approach. The latest case is that in which a lady, owner of a number of tenement houses in North Kensington, threatened to shoot an inspector who had incurred her displeasure as a result of operations under the Housing, Town Planning, etc., Act. Apparently the inspector went in terror of his life, and eventually had to appeal to the police court for protection. This was granted, and I am prepared to believe that he is not the only health official who is in need of protection. The person who threatens openly to do violence is not so bad; it is the hidden enemy we want protection against, and it is because we know he is there that we need to move warily.—*San. Rec. and Mun. Eng.*

Dominion Medical Monthly

And Ontario Medical Journal

VOL. XLI.

TORONTO, NOVEMBER, 1913.

No. 5

Original Articles

ADDRESS IN GYNECOLOGY*

BY THOMAS S. CULLEN, M.B.

Associate Professor of Gynecology, Johns Hopkins University, and Associate in Gynecology, Johns Hopkins Hospital.

To visit London is always a pleasure, to come as an invited guest to the Canadian Medical Association in the Forest City an honor which I deeply appreciate.

This evening I want to briefly outline the various methods adopted to educate the public as to the early recognition of cancer, and to impress upon them the fact that in the early stages of the disease many patients can be permanently cured.

For several years the medical profession has been fully cognizant of the fact that the laity has a false idea about cancer, namely, the widespread feeling that it is a blood disease and that, consequently, it cannot be cured. It is our duty to impress upon them the fact that in the beginning it is a strictly local process, a process that is amenable to surgical treatment.

Several earnest campaigns have been waged during the last few years. The various committees have devoted their attention mainly to pointing out to the family physicians what might be accomplished by early operation and urging the physician to send his patient at the earliest possible moment to the surgeon. Notwithstanding the splendid efforts in this direction little has been accomplished, not because the physicians were necessarily negligent, but because the patients did not present themselves until the disease was far advanced. It was finally realized that if satisfactory results were to be accomplished the message must be carried directly to the people. It was pointed out that fifteen or twenty years ago

Delivered at the Annual meeting of the Canadian Medical Association London, Ontario, June, 1913.

it was exceedingly difficult to prevail upon persons with appendicitis to be operated upon; now, with the knowledge they have, after appendicitis has been diagnosed, operation is at once sought, and the only question asked by the patient or his relatives is—to what hospital shall I go? When the laity are made fully aware of the cancer situation they will, on the first sign of the disease, present themselves for examination and will gladly avail themselves of surgical aid.

At the meeting of the Clinical Congress of Surgeons of North America, held in New York City in November, 1912, a cancer campaign committee was appointed, mainly through the efforts of Dr. Franklin H. Martin, of Chicago. The committee was instructed to write, or have written, articles on the subject of cancer, and was further instructed to have these published in the daily press, the weekly or monthly magazines, as might be deemed most expedient. The committee has gone cautiously, and through the aid of that master organizer and medical editor, George H. Simmons, was able to enlist the co-operation and support of some of the most representative magazines in the country. Mr. Bok, editor of the *Ladies' Home Journal*, and Mr. Harriman, managing editor of the same journal, manifested the deepest interest in the campaign. After much thought they came to the conclusion that a lay writer could better reach the public ear, and they naturally selected Mr. Samuel Hopkins Adams, who was such a dominant factor in the campaign against patent medicines, and who was last week made an associate member of the American Medical Association in recognition of his splendid crusade. Mr. Adams visited various surgical clinics throughout the country, and then wrote a most comprehensive article on the subject. His first article was published in the *Ladies' Home Journal* for May, 1913. It is well worth a thorough perusal not only by every layman, but also by each member of the medical profession. *Collier's Weekly* for April 26th, 1913, and the May number of *McClure's Magazine* also contain admirable articles on the same subject from Mr. Adams' pen. The medical profession is under a deep debt of gratitude to Mr. Bok, Mr. Harriman, Mr. Collier and Mr. McClure for so freely opening their pages for the enlightenment of the public on this very important subject.

It has been estimated that these three articles reached a reading public of between eight and ten millions. *Harper's Weekly* for March 29th also contained a timely article urging cancer patients to be operated upon without delay. Abstracts from the magazine articles appeared in many of the daily papers throughout the country. The *Baltimore Sun* contained a full column, the *Baltimore*

News and the *Baltimore American* each devoted ample space to the subject. The *New Orleans News-Item* gave a full abstract of Mr. Adams' article from *McClure's*, and the *Detroit News-Tribune* for Sunday, April 27th, 1913, with the permission of the *Ladies' Home Journal*, copied Mr. Adams' article in full. I have just mentioned a few of the daily papers that have given this matter wide publicity. The entire press of the country has been most liberal in its dissemination of our knowledge of cancer. This support was not confined to the papers of the United States. The Canadian papers have also strongly emphasized the necessity of patients suffering with cancer having their ailment attended to promptly. I have splendid clippings from the daily press of London, Toronto, Montreal, St. John, N.B., Winnipeg, and Vancouver. Our committee wishes to express our deep sense of appreciation of the hearty support given us by the press of Canada and of that of the United States in the dissemination of this knowledge, and we feel confident that they will gladly continue to publish any new data on the subject, until every one on the continent has a clear idea of just what cancer is, what its early symptoms are, and how they can best be treated.

An advertiser is naturally looking for results, and in like manner the cancer campaign committee was anxious to find out what influence Mr. Adams' article had had on the community at large. It was not long before they were forthcoming. I will relate just a few of them to you. Within a week after the appearance of Mr. Adams' publication, a colleague of mine told me that he had just operated upon a patient with cancer of the breast. The nodule was not larger than a pea. When asked why she came so early, she said that she had just read the article in the *Ladies' Home Journal* and felt that it was unwise for her to delay,—the outlook in this case is excellent. Another colleague had for weeks been urging a patient with cancer to be operated on, but to no purpose. Within three days after the appearance of the article, which she had carefully read, she entered the hospital and was operated upon. Dr. C. Jeff Miller, of New Orleans, wrote me that, as a result of the *Ladies' Home Journal* article, a lady soon came to him with an early cancer. Dr. T. C. Kennedy, of Indianapolis, under date of May 13th, 1913, writes: "A lady out in the state noticed a lump in the left breast. Seeing the article in the *Ladies' Home Journal*, she immediately consulted her family physician, who referred the case to me. I operated on her at St. Vincent's Hospital last Thursday, doing a Halsted. Here is a case that has a good chance of getting entirely well, as it was taken early."

Dr. Franklin H. Martin, of Chicago, early in May of this year, saw a beginning carcinoma of the breast. The husband had just read the article in the *Ladies' Home Journal*, and insisted on his wife consulting a surgeon. Dr. Martin removed the entire breast and the axillary glands, and feels sure that the outlook for a permanent cure is an excellent one.

My experience as to the strong impression made by Mr. Adams' article has been similar to those already related. In one morning I saw three patients from widely different points—one from New Orleans with some bleeding due to slight pelvic inflammation, another from Alabama with some bleeding due to a prolapsus, and a third from Maryland, with a small, but benign tumor of the breast. Each had read Mr. Adam's article, and each hastened her visit as a result of this article. All were afraid of cancer, and in each case I was able to relieve the patient's mind, telling her that no malignancy existed. Two of these three patients required minor operations.

From what you have heard, the knowledge of cancer has already been widely disseminated and it is bound to bear fruit. The more the subject is investigated the clearer it becomes that if the women of the country are made aware of what can be done if cancer patients apply early for treatment, it will be unnecessary to pay much attention to the men. If men are sick, unless very ill, they pay no attention to it, and only after they are urged by their mothers, wives, sisters or daughters, do they seek medical aid. As a matter of fact the woman is the health guardian of the household.

Skin cancer. Cancer of the skin is easily and promptly recognized and is usually soon brought to the attention of the physician.

Cancer of the lip is also soon discovered by the patient, and as a rule the physician's advice is sought early. While in many instances wide excision of the growth is at once advised, yet it is appalling to find the number of patients that are still treated in a palliative manner. Only a few months ago a friend drew my attention to an ulcerated area on his lower lip. His associates had not noticed it because of his long moustache. On questioning him I was surprised and distressed to learn that a supposedly competent physician had been burning the "ulcer" every few days for fully two months. Very valuable time was lost. Within a few days the growth and the glands of the neck were removed. These glands, on microscopical examination, were found markedly involved by cancer, and the patient's ultimate outlook is a very gloomy one.

Cancer of the tongue. Any growth of the tongue naturally calls for immediate intervention. My colleague, Bloodgood, has fre-

quently drawn attention to the small white patches on the lip or tongue of smokers. He looks upon these as precancerous lesions, and if, after a week or two, they still persist, then he advocates their immediate removal.

Cancer of the stomach is one of the very frequent varieties of cancer. In the late stages, to be sure, it can be diagnosed from blood in the stomach contents, the reaction of the stomach juices, and by the co-existent nodule that can in some cases be detected. In the early stages of the disease, however, most of these signs are wanting, and it is only in the early stages that a reasonable hope of a permanent cure can be thought of. In the right upper abdominal quadrant we most frequently find gall-stones, duodenal ulcer, or cancer of the stomach. Any marked disturbance in this region calls for prompt operative interference. A delay in a case of cancer of the stomach until definite signs are present usually means a delay until the case is advanced too far for operation.

Cancer of the intestine may be detected early if the growth partially or almost completely blocks the lumen of the bowel, or if it be associated with a great deal of bleeding. Sometimes when the patient is thin the nodule can be palpated. In stout individuals, however, the cancer may have extended far before symptoms sufficiently definite to enable one to make a diagnosis are present. If there be any obscure abdominal condition present, and if this does not yield promptly to treatment, then an exploratory operation should be promptly undertaken, as many valuable lives may in this manner be saved, lives that would be absolutely doomed if delay were advised.

Cancer of the rectum usually gives its tell-tale warning in the form of blood or of pain on defecation, and its recognition is not difficult.

I have referred only to the more common varieties of cancer; time will not permit me to discuss the subject in detail.

If we are successful in our cancer campaign, and of this there is not the shadow of a doubt, then we must be prepared to give these patients the best possible service. We must be able to diagnose accurately the borderline cases, and then when cancer does exist we must do such an extensive and thorough operation that the patient is given the maximum chance for a permanent cure.

In cancer of the skin, lip, tongue and rectum, a diagnosis can usually be readily made by the surgeon in his regular examination. Cancer of the stomach can in the early stages be detected, as a rule, only with the possible assistance of the Roentgenologist, and mainly by an exploratory abdominal operation. The two chief classes of

cancer that require expert pathological knowledge are cancer of the breast and cancer of the uterus.

Cancer of the breast. All surgeons meet with many nodules in the breast. Some of these are definitely fibrous in character, others are definitely cancer, while not a few are on the borderline and can only be positively diagnosed on microscopic examination. It is wise to remove all breast nodules, but where malignancy exists it is imperative to do a most thorough and complete removal of the breast, pectoral muscles, axillary glands and fat. Bloodgood, after the most careful and painstaking study of the cases at the Johns Hopkins Hospital, has found that to remove a piece of cancerous breast for microscopical examination, and then delay several days or a week for the pathologist's report is a most dangerous procedure, as nearly all of these patients have a recurrence. The cutting into the growth allows such a widespread dissemination of the cancer that the subsequent operation is of no avail. Consequently, in case of doubt a piece should be cut out and examined immediately, the area of the excision in the meantime being treated as a contaminated area, and if cancer is reported the breast is removed at once, the delay occasioned by the microscopic examination not having taken over ten to fifteen minutes at the outside.

There are many good surgeons through the country, but few good surgical pathologists, except in the teaching centres. The time is speedily coming when every hospital will have a trained and expert surgical pathologist on its staff, a man whose advice can be had at every operation. He will prove to be one of the hospital's most valuable assets. Some may ask why we have not more such men. The truth is that the young physician must make a livelihood, and as the pathologist receives as a rule a mere pittance for his work, few have the scientific perseverance to enter this field. This field must be made sufficiently remunerative to induce plenty of capable men to enter it. When once they embark upon it, learn what a fascination there is in following an individual case to its very rock bottom, obtain here and there a clue enabling them to forecast with a degree of definiteness and precision whether this or that patient will recover, and even every now and then discover something that has never been known to medical men before, then you will find men that will never give up the study of surgical pathology.

When I started medicine a quarter of a century ago, asepsis was slowly creeping into Ontario, and Lister's carbolic spray was still in vogue. We examined very little operative material microscopically in those days. The time is rapidly drawing near when every

surgeon, before he becomes a real surgeon, must have as thorough a grounding in surgical pathology as he now has in the principles of bacteriology. Many conditions that are now obscure to him, after months of study of their finer structure in the laboratory are readily recognized with the naked eye. On opening the abdomen, whether in the clinic or in a small country house, he is always thoroughly familiar with whatever panorama the abdomen in the individual case may unfold. In one case he will find a small nodule not larger than a pin-head; this will give him a clue as to some pathological condition tucked off in a remote corner of the abdomen. In another operation he will at first glance think the case inoperable, but will notice some small familiar nodule partially buried in the adhesions. He knows from past laboratory experiences that this is benign, and will go ahead and finish his operation. A high building requires deep foundations. Few surgeons of the future will attain marked renown unless these foundations consist in a thorough knowledge of surgical pathology, the material that they are daily confronted with.

Cancer of the uterus. Bleeding from the uterus that cannot be satisfactorily accounted for should always excite suspicion. On vaginal examination it is frequently possible to make out a uterine tumor. When the uterus is fairly normal in size and not nodular, and the cervix is normal, then of course the organ should be dilated and curetted. Before undertaking to make a diagnosis from scrapings one should have a thorough knowledge of the appearance of the normal endometrium at or between the periods, during pregnancy, and in old age; each is different, and yet perfectly normal.

Hyperplasia of the Endometrium. I want to draw your attention to a common, and yet little mentioned, pathological condition of the endometrium causing exceedingly free bleeding at the period and often reducing the patient's hemoglobin to a very low point. The first cases of this kind that were brought to my attention came independently from Dr. F. R. Eccles and Dr. H. Meek, of this city, in 1895. These cases were reported in "Cancer of the Uterus," page 479, published in 1900. These patients are usually from thirty-five to forty-five years of age, but I have noted the condition in girls in their teens. The flow is excessive and the menstrual periods may be almost continuous; there is usually no intermenstrual discharge, however. The mucosa is much thicker than usual. On microscopic examination the surface epithelium is found intact. Some of the glands are very small, others much enlarged. The large glands may be either circular or tortuous. All are lined by thickened epithelium and the stroma is excessively cellular. Often

the nuclei of the stroma cells contain nuclear figures. Scattered throughout the stroma are frequently found large venous sinuses, some of which are thrombosed. Cancer of the body of the uterus is diagnosed from its pattern, and, secondly, from the changes in the individual cells. Gland hyperplasia histologically bears absolutely no resemblance to it.

Where carcinoma of the cervix exists the small cauliflower outgrowths from the cervix or the area of ulceration leave little doubt as to the diagnosis. If one is not certain, then a small wedge of cervix is removed and examined, preferably at once.

While speaking of carcinoma of the cervix, I wish to draw your attention to a pelvic tumor that has thus far in the main escaped notice. Dr. D. S. D. Jessup, of New York, recently sent me a specimen of two tumors, each of which had the same characteristics. In each case the tumor was attached to the cervix and grew into the rectal wall. Both growths were so firmly fixed that while the surgeon was doing a complete abdominal hysterectomy he had to remove at the same time a piece of the rectal wall with the cervical growth. In both cases the tumor consisted of myomatous tissue, with uterine mucosa scattered throughout it. In the February number of the *Proceedings of the Royal Society* is a report of two similar cases by Dr. Cuthbert Lockyer, of London.

I have had two cases which belong in this category. In the first case the myoma had not as yet become firmly grafted on to the rectum. In the second case the adenomyoma filled the left broad ligament, and on account of the patient's extreme weakness it could only be removed in part. I feel confident that, when all rectal growths are carefully examined histologically, some supposedly carcinomatous growths will prove to be adenomyomata. These cases are of so much interest that I will give them somewhat in detail.

CASE 1.—*Myomata of the Uterus; Adenomyoma between the Cervix and Rectum and associated with Rectal Adhesions.*

Mrs. G. P., seen in consultation with Dr. Samuel T. Earle, March 17th, 1911. This patient had several small polypi in the rectum. The uterus lay back on the bowel and was apparently adherent. On March 22nd of the same year Dr. Earle burned off the rectal polypi. These were five or six in number and situated directly behind the cervix. Microscopic examination of these showed that they had been undergoing definite inflammatory changes, as evidenced by the quantities of polymorphonuclear leucocytes on the surface, and by the fact that the underlying stroma contained great numbers of small round cells.

After Dr. Earle had finished his operation I opened the abdomen. The rectum was found adherent to the posterior surface of the uterus low down. On the left side was a corpus luteum cyst. This had evidently ruptured at some previous time, as the surrounding tissues were stained a dark brown. We did a complete hysterectomy, removing the uterus and appendages. I then shelled out a small myoma 1 cm. in diameter from the left side of the pelvic floor, and another 3 cm. in diameter, with a secondary nodule 1 cm. in diameter lying on its surface. This combined nodule was situated between the rectum and vagina on the left. The patient made a perfectly satisfactory recovery. At a later date, however, she had definite renal trouble, as evidenced by pus from both kidneys. X-ray examination showed a calculus in the pelvis of each kidney. As the left kidney had apparently given more trouble than the right we removed the stone from that kidney. The stone in the right kidney the patient still has, as it has given her very little trouble.

Pathological report, No. 16079. The uterus itself is little enlarged. Scattered over the outer surface of the organ are several small fibroids. On microscopic examination the endometrium shows definite endometritis. The larger nodule lying between the cervix and rectum is 4x3x2 cm., and the smaller one 1 cm. in diameter. The larger nodule, on histological examination, consists in the main of typical myomatous tissue, but at one point in a cleft are islands of typical uterine mucosa, and at another point is a miniature uterine cavity. The smaller nodule only contains one or two gland-like spaces. From the history it will be noted that in this case the cervix was adherent to the rectum. We have here a connecting link between the ordinary adenomyoma of the uterus and an adenomyoma involving the rectum. It is the only case that I have ever seen showing this stage.

CASE 2. *Adenomyoma in the left broad ligament and intimately blended with the rectum.*

Mrs. G. S., admitted to the Johns Hopkins Hospital, June 4th. 1913. This patient is thirty-seven years of age, and two years ago was operated upon in San Francisco, a myomatous uterus and enlarged ovaries being removed. At that time it was necessary to also remove a small portion of the rectum on account of dense adhesions.

Since operation she had had a great deal of pain in the lower abdomen and has for months had almost continual bleeding from the cervix. On her admission to the hospital I found thickening posterior to the cervix, also induration in both broad ligaments. Although she was in a very weakened condition from the continuous

loss of blood we felt that something must be done. The cervix was dilated, and on curetting we brought away what, on microscopical examination, proved to be perfectly normal uterine mucosa. The supravaginal hysterectomy had evidently been a high one. The right broad ligament was indurated and board-like, and on the left side there was also thickening.

A few days later we explored the abdomen. When the operation was commenced her pulse was 145. We found the rectum densely adherent to the bladder, and the left broad ligament was filled out by a rather cystic growth. Those assisting at the operation thought we were dealing with a malignant growth which had spread into the broad ligament. In order to determine definitely, I cut the round ligament and separated the folds of the broad ligament, and found we were dealing with a cystic mass 6 cm. in diameter. This was gradually shelled out from its attachment to the rectum, but by this time the patient's pulse had become almost imperceptible, and was between 180 and 190, although she had lost practically no blood. We removed the greater part of the growth, but left a portion still attached to the rectum, and did not dare explore the right broad ligament. A drain was introduced into the pelvis and brought out into the lower angle of the incision. When the cystic mass that was attached to the rectum and had occupied the left broad ligament was cut across, it was found to contain one large irregular cavity about 2.5 cm. in diameter. This contained chocolate-colored fluid, and was lined by a rather smooth-looking membrane, which was brownish tinged. The outer coat looked like ordinary muscle.

On microscopic examination it was found that the wall of the blood-stained cyst was lined by one layer of cylindrical epithelium, and that this rested on a definite stroma consisting of cells having oval vesicular nuclei. The more solid portions of the growth were made up of non-striated muscle fibres arranged in whorls, and of quantities of uterine glands embedded in their characteristic stroma. In some places only two or three glands with the surrounding stroma were visible, but at other points miniature uterine cavities were found.

We are here dealing with an adenomyoma which has formed a cystic mass in the left broad ligament, and which has become densely adherent to the rectum. If the patient at a later date is in fair condition we will then attempt to shell out the thickening in the right broad ligament, remove the cervix, and then a portion of the rectum to which the growth is intimately blended.

Since this note was made the patient had gradually become weaker. She died June 19th. These growths when once removed do not return.

To do the maximum amount of good for the increased numbers that will come for operation as a result of our labors, our surgeons must be thoroughly conversant with the anatomy of the given part, and must have a full knowledge of the paths along which the cancer travels from its point of origin. In cancer of the lip the operator must consider the removal of the glands of the neck. In cancer of the breast he must be familiar with the lymph glands that are first involved, and in cancer of the rectum must remember that the liver is frequently secondarily invaded, and that if such be the case, an extensive rectal operation is contra-indicated.

I shall never forget meeting one of my Baltimore colleagues abroad one morning and saying, "Why, I thought you were going to Dr. ——'s clinic this morning." The reply was: "I did. He was to do a breast operation at 8.45. I arrived at 9, and the operation was over." This was not long ago, and the surgeon has a world-wide reputation. If our work were to be as superficial and incomplete as in this case, then it were better not to undertake any campaign against cancer. But such is not the case, and admirable work is being done in many clinics; not in all, however, I am sorry to say.

Some surgeons fearing they will not be able to close the wound after an extensive breast operation are loath to remove as much tissue as is necessary. They accordingly make their flaps alarmingly near the cancer area. A recent method devised by my friend, Dr. Curtis F. Burnam, obviates this. The surgeon makes as wide a removal as he deems necessary, giving no thought to the raw area left. After the removal of the breast the raw area is measured and a skin area of sufficient size is removed from the abdominal wall. It does seem remarkable that this method has not been employed before as a routine procedure, as the abdominal wall is so lax that a flap of practically any size can be removed and the resultant space easily approximated.

Every wide-awake business man has his hands on the reins continually, has careful records of his purchases and of his sales, and at regular intervals takes stock. Recently I was dining with the general manager of one of the greatest trunk railroads in the United States. He was a keen-eyed business man. After dinner the conversation drifted to methods of keeping track of various data. On my asking him a question he took me back to the dining-room in his private car and opened the buffet, which, in former years,

was usually stocked with viands, and showed me his card catalogue dealing with all phases of the road. In other compartments he had complete data of every piece of work being done on the entire road, also up-to-date statistics relating to the number and character of the employees of the road. This was a working office of the entire road, where he could transact business no matter whether his car was lying on a siding or in a city distant from the home office, where a duplicate set of papers and files were kept. This railroad manager, no matter where he happened to be, was always ready at a moment's notice to satisfactorily transact his company's business.

Hospital management in years past was notoriously lax, but in recent times business methods have been introduced into many of the newer institutions. It would do all medical men good to visit up-to-date business houses and see the card index systems and the various short-cut methods employed in every-day business. It would also be admirable for the trustees of the various hospitals to see to it that the same systematic and business-like methods are used in the registration of data in the hospitals with which they are connected, as they employ in their individual business. I cannot help thinking of the Episcopal clergyman in New York, who had as his board of trustees several wide-awake business men. On one occasion it took them several hours to discuss the expenditure of a few hundred dollars. Finally, the clergyman in despair leaned over and whispered to one of the trustees, "How would you handle such a proposition in your business?" This trustee replied that such small matters never came to his attention. The ludicrous side of the situation suddenly dawned upon him. Here he and his brother trustees, all millionaires, were spending hours worrying over trivial matters that would, in their business offices, be attended to by junior clerks. The trustee immediately moved that the rector be given authority once and for all to order what was necessary for the church, and to send in the bills to them. The trustees of the hospital and the various members of the medical staff are in some measure in a similar position to that board of trustees. Their time is too valuable to be continually taken up in routine, but it is their duty to see to it that competent clerks are employed to keep careful records of all patients entering the hospital or dispensary. The findings at operation must be recorded with precision and the microscopical examinations of the specimens added to the history.

This is an age of time-saving devices, and all business men are keen to see what results have accrued from their endeavors. What applies to business applies equally well to the subject of cancer.

What is the use of operating year after year in a routine manner, having but a hazy idea of what has finally become of the patient? At least one tactful clerk in every hospital should be assigned to the task of keeping in constant contact with those who have been operated on. In this manner one can at a glance tell how many patients have been relieved by operation. The results of one operator are compared with those of another—of course in a most friendly way, and there is no doubt that a runner can always make better progress with a pacemaker. The careful analysis of a large number of cases always demonstrates wherein future improvements can be made. This continually keeping track of the patients will in itself strongly impress the former patients with the hospital's interest in their welfare, and will stimulate them to urge their fellow-companions to undergo the same treatment if they be taken ill.

These data, to be of use, must from time to time be thoroughly analyzed and published. You and I are continually gleaning knowledge from the publications of other men, both on this and the other side of the water, but how many of us are doing our share in the dissemination of knowledge? In fact, we manifest a remarkable tendency to become sponges instead of springs for the pouring forth of our medical experiences—experiences that other surgeons should know of and profit by. Follow up all your cancer patients; see what has become of them. Many of them will be dead, but some that you have lost track of are still living and well. You will soon become so interested in the return letters that you can hardly wait for the postman to arrive, and when, now and then, a reply says that the patient is alive and well at the end of ten or thirteen years, it will warm the cockles of your heart; it will more than outweigh many of the disappointing results you have had and will make you feel that after all the fight is well worth the undertaking.

A year ago I was asked to write the surgeons of the Southern States to find out what their final results were after operation in cancer of the cervix. The results of my inquiries are given in *Surgery, Gynecology and Obstetrics* for March, 1913. The vast majority had kept but scant histories, and had finally lost track of their patients, so that at the present moment few surgeons in the country have any adequate idea of what their labors have accomplished. Do let me urge upon you the systematic recording of every cancer case, the employment of the most thorough operation in these cases, and the tabulation at yearly intervals of the results. You will thus continually improve your methods, will grow more enthusiastic in your campaign against this dread malady, and

will at the same time give valuable data to your colleagues in the profession.

The aim of our cancer campaign committee was to stimulate a wide-spread interest in the subject among the laity. Its labors have already borne fruit. Within the last few weeks a most representative body of New York laity, both men and women, have joined forces with the medical profession in the formation of the American Society for the Control of Cancer. This committee is assured of excellent financial backing, and is bound to be a great factor for the dissemination of knowledge concerning cancer.

We must not overlook the pioneers in publicity. Dr. J. H. Carstens, of Detroit, Michigan, has for years been doing yeoman work in his state, Dr. John G. Clark, Dr. F. F. Simpson and Dr. J. M. Wainwright, in Pennsylvania, Dr. S. Leigh in Virginia, Dr. F. H. Jackson in Maine, and there are a host of others whose names I would like to mention. I would also mention the splendid work of the Council of the American Medical Association in publishing instructions under the chairmanship of Dr. H. B. Favill.

I would strongly urge upon the Canadian Medical Association, the most representative body of Canadian physicians, the advisability of at once appointing a cancer campaign committee for Canada. This could work independently or in close co-operation with one of the cancer campaign committees of the United States.

Much money has been given by philanthropic people for the study of the cause of cancer. Whether the etiology of cancer will soon be discovered or not is problematical, but in any event the people of the country should be made thoroughly cognizant of the early symptoms of cancer and of the fact that many may be cured by early operation. I can imagine no gift that would yield the philanthropist a greater return than the satisfaction of knowing that as a result of his munificence thousands of lives of cancer patients had been saved by prompt operation.

You in the Dominion have the wealth, the broad-spirited men, and the thoroughly competent surgeons, see to it that in the near future the cancer results of Canada are equal to if not better than those of any other country.

THE TREATMENT OF RENAL DROPSY

H. A. HARE, M.D., PHILADELPHIA.

The therapy of chronic parenchymatous nephritis (*Therapeutic Gazette*) is limited to the modification of annoying or dangerous symptoms. Little can be done to delay the progress of this disease. Often, in futile attempts to control the malady, the end may be hastened and the patient made more miserable rather than easier.

A rigid diet is oftentimes insufferable, and in Dr. Hare's experience the ordinary simple foods usually taken by people who live well but plainly are not harmful but useful. Foods which are cooked a second time, sausage, scrapple and game which has been "hung" develop by-products with which the lame kidneys cannot deal. Also foods difficult of digestion which are too long delayed in the bowel. It seems heterodoxy, but Dr. Hare believes fresh red meats, like beef and good mutton, in moderate quantities are not any more harmful than white meats. There is nothing to show that they are except superstition. It is unwise to withdraw all red meats from one who has used them.

Nor does Dr. Hare believe in the milk diet for these cases. It would require not less than four to five quarts a day to provide sufficient calories for maintenance, and no one with impaired digestion and lame kidneys can deal with or get rid of this amount of fluid. If attempted, the result is biliousness, and then the liver cannot perform its poison-destroying functions. He does not want to exclude either milk or meat, but pleads for a simple, mixed, rational diet. He does not believe in drenching the patient's tissues with fluid or starving the patient by lack of protein food. The point is that nutrition must be preserved as far as possible to permit each organ of the body to do its work. A mixed diet, therefore, which is comparatively dry, is essential in renal dropsies, only allowing those quantities needed for the maintenance of life, that is the amount he needs to allay what the patient calls thirst. The patient's inability to deal with liquids is greater than his inability to deal with proteins.

As to salt-free diet, the idea is that if we give salt the body will retain fluid to hold it in solution, and result in increased dropsy. Hare believes this largely fallacious. The salinity of the tissue

fluids is 0.9 per cent., and any quantity of salt placed in the alimentary canal will stay there. By the law of osmosis fluid will pass into that canal until the salt is diluted to 0.9 per cent. and tend to act as a purge which is beneficial. Lame kidneys have not robbed the body fluids of salts, but rather help the body to retain salts. To deprive a patient of all salt spoils his food, stops his appetite, disorders his digestion. His excess of body fluid may demand salt, so that its tonicity may be maintained and so that his cells may not swell up and drown. This is closely associated with purgatives for renal dropsy. Temporarily often the dropsy is diminished, but the after thirst of the patient demands the injection of liquid for its relief. The need of withholding salt after purgation is self-evident.

Dr. Hare condemns the abuse of Basham's mixture. If diuresis is all that is needed, liquor ammonii acetatis is sufficient. As there are only about thirty grains of iron in the body, yet Basham's gives more than this in a few doses to disorder digestion and promote constipation. It is useful as a remedy for anemia following acute nephritis, but in chronic parenchymatous nephritis it is as useless in the anemia as in that of cancerous cachexia.

What should we do then? Drain excess of fluid by tapping serous cavities and by the use of Southey's tubes if the anasarca is really severe enough to interfere with function; modify water intake, but do not induce suffering by thirst. If there is high blood-pressure, relax the renal vessels with nitrates if possible; if it is low and the heart feeble, improve the circulation by digitalis, caffeine, and if the nephritis be really a chronic one, devoid of true inflammation, by theocin, in an endeavor to stimulate to increased activity such cells as can still functionate.

INTERNAL HEMORRHAGES: CAN WE CONTROL THEM?

FRANK BILLINGS, M.D., CHICAGO.

In this paper (*J. A. M. A.*, July 26th, 1913) are discussed those internal hemorrhages due to rupture of a diseased artery or vein. The chief forms commonly encountered are gastrorrhagia, hemoptysis, intestinal hemorrhage and hematuria. The type of hemorrhage considered is always accidental. There is an associated morbid anatomy. Hemorrhage from a ruptured or torn blood vessel ceases when a thrombus is formed within the vessel, therefore treatment should endeavor to excite thrombus formation in the wounded vessel. The first principle of treatment is rest, both mental and physical. The patient should be given moral support, reassurance of recovery; on the part of the physician there should be firmness, a calm demeanor, and a quick and methodical procedure. Opium should be used at once, in the form of morphia sulphate, hypodermically. It produces mental calm and physical quiet. It should be repeated judiciously to hold the desired result. In severe hemorrhages in pulmonary tuberculosis, typhoid, ulcer of the stomach, etc., absolute physical quiet should be maintained from twenty-four to forty-eight hours. Food is not necessary and thirst may be controlled in all forms except hemoptysis by small quantities of water. In hemoptysis, normal sodium chloride or calcium chloride solutions—250 to 500 c.c.—may be injected into the rectum every four to five hours. An ice-coil—better than an ice-bag—may be placed over the bleeding organ. If hemorrhage persists and cannot thus be controlled, test for coagulability of the blood—a drop of blood on white paper or a horse hair in a capillary glass tube, and if the coagulation time is over four or five minutes measures to improve the coagulation time may be used. For this calcium chloride, phosphate, lactophosphate or lactate in doses of one gramme every two or four hours may be used. Or when necessary it may be given in solution per rectum. It is not to be given by the mouth in gastrorrhagia. If coagulation is considered due to lack of ferment it may be supplied by intravenous or hypodermatic use of normal human or normal horse-serum, or even diphtheria antitoxin horse-serum. Ten to thirty c.c. or even a larger amount may be injected at once and repeated if necessary.

Dr. Billings does not place any confidence in stypticin, ergot or such drugs, as they increase blood-pressure, stimulate the heart

and produce vasoconstriction, which might expel the thrombus. Nor would he use hypodermoclysis of sodium or calcium chloride except in proximate ensanguination only, and then for the purpose of supplying the patient with a circulating medium.

Such drugs as strychnine, camphor, ammonia, digitalis, should only be employed to counteract dangerous collapse, and should never be used to control the hemorrhage.

In gastrorrhagia the stomach must have absolute rest until the bleeding is controlled—no food, drink or ice by mouth.

In hemoptysis due to chronic ulcer of the stomach, the hemorrhage may not cease so long as the stomach is dilated with blood and other contents. Here lavage with normal salt solution until the stomach is empty is safe and often effective. When the stomach is emptied a large dose of bismuth subnitrate may be used with benefit, and it is much more beneficial here than any form of iron or other so-called styptic.

In typhoid hemorrhage rest is absolutely essential—not even a bed-pan used—but the bowels allowed to empty themselves in a folded sheet.

In all treatment of internal hemorrhages, absolute quiet and opium is the sheet-anchor.

In the discussion which followed the reading of this paper, von Mansfelde, Ashland, Neb., said that powdered aluminium, the pure metal ground into a powder, 160 grains to the dose, and mixed with glycerine, will stop almost magically hemorrhage from the stomach except from larger vessels. In ulcer of the stomach it can be used again and again without the slightest harm. He believes it acts as a covering of a tenacious character. It is put out by a German manufacturer in powders of 160 grains.

Dr. Billings, replying to a question in regard to the use of gelatine and extract of guinea-pig testicle in the treatment of internal hemorrhages, said that the value of gelatine depended upon its calcium content, and there is a danger in it causing tetanus. Animal extracts he considered as practically the same as serums. He has little confidence in astringents, and, so far as his own experience goes, the prompt use of horse-serum is about as effective as the human serums, and in large cities that is always at hand. It is useless to use a lot of remedies which have nothing to do with thrombus formation.

TUBERCULIN TREATMENT

BY HECTOR MACKENZIE, M.D., CANTAB.

Consulting Physician to the Brampton Hospital for Consumptives.

In giving a brief summary (*The Lancet*, Aug. 23rd, 1913) of what is known about tuberculin, Dr. Mackenzie first outlined Koch's original observations and experiments.

In recognized tuberculous patients very minute doses—one-thousandth of a cubic centimeter—was generally sufficient to produce a reaction. Three results may follow, local, general and focal. 1. A painful swelling at the seat of injection on the second or third day, or an area of redness around the puncture. 2. A general reaction may be produced, rise of temperature in 24 hours, headache, general malaise, pains in the limbs, loss of appetite and sometimes dyspnoea. 3. A focal reaction, an inflammatory reaction at the seat of any tuberculous disease present. In the case of pulmonary tuberculosis, there will be an increase of cough and expectoration, possibly traces of hemorrhage, or pain over the affected part. Increase of rales on auscultation and tubercle bacilli may then be found in the sputum after the injection.

One property of tuberculin about which there is no doubt is its power of revealing the presence of tubercle in the animal or human body, but while it has been of the greatest value as a diagnostic in cattle it is more limited in its usefulness in man. The tests introduced in recent years are the cutaneous test of von Pirquet, the percutaneous test of Moro, and the conjunctival test of Calmette. The von Pirquet test is practically useless for positive diagnosis, except in the case of children, and the Calmette test is now but little used on account of the undesirable effect on the conjunctiva. It is only the first time that the ophthalmic test is applied that it is trustworthy. The tests do not distinguish between active and arrested or healed disease. Professor Sahli is absolutely opposed to the use of tuberculin as a diagnostic, while Mackenzie considers it is only very rarely that there is any necessity to use it for purposes of diagnosis. Sometimes it helps to clear up the diagnosis. He strongly deprecates its indiscriminate use as an ordinary means of diagnosis.

Following Koch's discovery of tuberculin, the results were so disastrous that it was almost entirely dropped as a mode of treatment. But the whirligig of time has brought it into repute once

more as a therapeutic agent. This is due to some faithful adherents of the original method and to Wright's extension of the underlying principles, and at the present day tuberculin, rightly or wrongly, is being widely used as a therapeutic agent.

Dr. Mackenzie has satisfied himself that old tuberculin is inert by the mouth. In the case of T. R. one is able to produce the same constitutional effects through oral administration as through subcutaneous, but the dose must be considerably greater. Generally speaking a dose of 1-1,000th of a cubic centimetre is on the borders of reaction, and in starting treatment it is never wise to administer more than 1-1000th to 1-100th part of the reaction dose.

A very large proportion of the human race become infected at some period of life with tuberculosis. Of these, a large proportion recover spontaneously and without medical treatment. The race which has long known the presence of tuberculosis in its midst has acquired a certain degree of resistance, but natural resistance may be broken down by many causes.

The aim of the physician is to assist nature in bringing about a cure, and he endeavors to remove those causes which have lowered the natural resistance, often even removing local tuberculous tissue. What the physician wants is something specific, but have we got it in tuberculin?

There are three methods in which tuberculin is used in the treatment of pulmonary tuberculosis: 1. The original method of Koch—in which tuberculin is given without any attempt being made to prevent reaction. 2. Reactions are not discarded, but tuberculin is administered in increasing doses until a reaction occurs, and then more cautiously administered until another reaction occurs, and so on. 3. In the third plan an effort is made to avoid reactions altogether.

The plan of starting with very small doses and gradually increasing these and avoiding reactions is that which is most followed at the present time. One starts with a dose which is a thousandth part of that which might be expected to give a reaction, and the dose is gradually and tentatively increased. A good rule is never to double the previous dose, and a careful watch should be kept for any sensitiveness or reaction. A local reaction should be taken as a danger signal and the dose diminished. A general reaction is an indication for suspending treatment for a time and then working up again from a smaller dose. Petraschky has advocated repeated courses extending over a period of two years, alternating three months' treatment and three months' interval without.

As to results of tuberculin treatment no one can claim it is a direct cure. What should be brought about in attempting to follow Nature is an immunity to further infection with the bacilli. Tuberculin calls into being antagonistic forces inherent in the body for combatting tuberculous infections. Even where no selection of cases is made it is the common experience that the general tendency of cases which come under medical treatment of any kind is towards improvement. But every one who uses tuberculin uses it in selected cases, in ambulant cases at a dispensary, at the hospital, at a sanatorium, at a health resort. If the patient is febrile he is put down as mixed infection and unsuitable for tuberculin. The febrile and active cases are not as a rule good subjects for tuberculin. Most of the cases that do well appear to be cases that one would select to do well under favorable conditions of hygiene and cure. We are to bear that in mind in judging results. Tuberculin as a remedy, if it is a remedy, must be put on a lower plane than such remedies as salicylate of soda and acute rheumatism, quinine in malaria, antitoxin in diphtheria, etc. The most that can be claimed for tuberculin is that it promotes the natural defences of the body. So does fresh air, good food, hygiene, care, climate.

Although having used tuberculin for a number of years in every way possible, Dr. Mackenzie feels still uncertain as to its value as a remedy. As a remedy which will surely benefit a patient, its case is not fully made out, and it is still on its trial. What is needed is practical proof.

THERAPEUTIC NOTES

Leukemia.—J. Meyers and T. Jenkins (*Albany Medical Annals*) draw the conclusion from a study of cases published and their own case that benzol is a valuable addition to the therapy of leukemia of any kind. In all cases it reduces the white cells, but not to normal. In cases of 100,000 to 200,000 it may give brilliant results. When Roentgen rays can be used in combination the results are very favorable. The red corpuscles and hemoglobin are generally beneficially influenced.

Gonorrhea in the Female.—Hofmann (*Interstate Medical Journal*) says the first thing to do is to ascertain the presence of the gonococcus in the discharges. Separating the labia with thumb and index of left hand, swab all the exposed parts with a solution of 3.5 per cent. iodine crystals in 95 per cent. alcohol. Force a few drops into the orifices of Skene's glands with a hypodermic syringe, the needle blunted by filing. Repeat this in the vulvo-vaginal glands. Except in isolated instances has Hofmann found it necessary to treat the urethra directly. When this is done the patient is placed in the Sims' position and Sims' speculum introduced, the vagina swabbed dry with cotton and the presenting cervix thoroughly painted with the iodine solution by means of a cotton swab. The cervical canal is not touched. Then paint the anterior wall thoroughly, then the right and left sides. Next press the swab firmly into the posterior cul-de-sac, partly withdraw the speculum, rotate it to press against the anterior wall and reintroduce as far as possible. Swab the posterior wall. Then introduce a strip of gauze as high up against the posterior wall as possible, remove the speculum and allow the gauze to protrude beyond the introitus. There will be some smarting and burning for a half hour, though some will complain of no inconvenience. Doses of 5 to $7\frac{1}{2}$ grains of urotropin are given four times daily with plenty of water. Rest for the patient in bed as much as possible; light diet. The applications are repeated every third day in both acute and chronic cases, and two days after the third treatment another smear taken. If gonococci be present the treatment is continued along with vaccines, the latter in large doses at short intervals being valuable. Hot douches are taken by the patient, recumbent. From four to six quarts of

normal salt solution, twice to four times daily, each followed by a one quart injection of permanganate of potash solution, 1-5,000 or picric acid 1-250, the gauze drain being removed by the patient at the first douche four hours after the local treatment. With this treatment Hofmann claims uniformly encouraging results and rapidity of cure.

Sciatica.—G. A. Young (*Interstate Med. Jour.*) advises diaphoretic treatment as the primary treatment in an acute attack of sciatica. A full hot bath, hot drinks, repeated doses of tincture of aconite, complete rest, often cut short an attack. Aspirin, salicylates, bowels opened, prolonged hot applications are of service. Hypodermic injections daily of 1/10 to 1/6 grain of pilocarpine nitrate are valuable in sciatica as well as in interstitial neuritis. In the chronic cases Young gives the pilocarpine in the evening, the patient sweating between blankets, and then rubbed down and placed in a warm bed. The treatment mostly in the professional eye at the present is that of Lange-Schlösser. It consists in the injection of 100 c.c. of 0.1 per cent. of beta eucaine in physiological salt solution. This is inserted into the perineural sheath of the sciatic nerve.

Progressive Baldness.—The biokenetic treatment, as devised by Jacquet, consists in biotherapy of the digestive and genital tracts and nervous system, active movements of the muscles of the scalp, brushing and massage. These all favor the action of local applications. As to the general rules of biotherapy, there should be prolonged mastication of all food, at least three-quarters of an hour at each meal. The meat ordinarily consumed should be decreased, and no evening meal at all. As well should the fats and hydrocarbons be decreased. Acids, spices, stimulants should be suppressed. The quantity of liquids should be reduced, and intellectual and mental work after meals should be eliminated. Of internal drugs allowed, tincture of nux vomica or an alkaline mixture in case of flatulent dyspepsia. The following may be given with advantage: Bicarbonate of soda, 2 dr.; phosphate of soda, 1 dr.; sulphate of soda, 1-2 dr.; water, one quart. A tumblerful of this should be taken warm at each meal. Sexual excess should be avoided. Ovarine is useful in women who are approaching the menopause. Biotherapy of the nervous system is conducted through suppressing nervous strain and avoiding all brain work

after meals. All causes of irritation, whether due to lesions or teeth, gums, chronic coryza, troubles of accommodation, should be sought and corrected.

Enuresis. —Simpson (*Edinburgh Med. Jour.*) says change of scene may sometimes be beneficial. If the incontinence is specially evident during the first two or three hours of sleep, it should be seen to that the child passes water immediately before going to bed. Then he should be aroused two hours afterwards, and the bladder again evacuated. This is especially important where the urine is alkaline. Regular habits of urinating throughout the day should be established, and he should be encouraged to retain the urine as long as possible. Tea and coffee should never be given, and the last meal and fluid should be at least an hour of bed time. Tilting of the bed, Simpson does not consider to be of any value, but plenty of fresh air and a fair amount of exercise are important. Drug treatment averages three to six months, as the condition has become more or less a fixed habit before it is regarded in a serious way by the parents. Belladonna, citrate of potash and urotropin are three drugs of undoubted efficacy, but a careful examination of the urine is to be made before either is employed. In cases where the urine is normal, or at least presents no abnormal features, and the incontinence is the result of some debilitating condition, tonics should be first administered, and then belladonna, commencing with ten minims of the tincture two or three times a day, and gradually increasing to 20 to 25 minims. In most cases 15 minims will be found the maximum dose necessary to be employed. In cases where the urine is extremely acid, the acidity may be reduced by ten grains of citrate of potash thrice daily, and when the acidity has been overcome, the belladonna may be begun. If the general health is not good, two to three minims of liquor strychnine may be added. Where the urine is alkaline, dieting is of first importance, all carbohydrates being prohibited. If it is very alkaline, acid sodium phosphate may be given, and then, when the alkalinity has been reduced, belladonna as above. Where it is established bacilli are in the urine, if this is very acid, reduce with acetate of potash, and administer urotropin, 5 to 10 grain doses thrice daily. In mixed infection, vaccines may be used to advantage. Ergot should be tried if belladonna fails. If the child is backward mentally, thyroid extract may be tried, 5 grains daily. If the child is highly nervous and has disturbed sleep, 5 to 10 grains of potassium bromide may be added to the evening dose of belladonna.

Reviews

Manual of Operative Surgery. By JOHN FAIRBAIRN BINNIE, A.M., C.M. (Aberdeen); Surgeon to the General Hospital, Kansas City, Mo.; Fellow of the American Surgical Association, etc. Sixth edition. Revised and enlarged. With 1,438 illustrations, a number of which are printed in colors. Price, \$7.00. Philadelphia: P. Blakiston's Son & Co.

It is well known that this is one of the best books on operative surgery before the medical profession, and the fact that this is the sixth edition, testifies to its popularity. The aim of the volume is not so much a text-book as to serve as a guide to the surgeon when in trouble. A considerable amount of space is, therefore, devoted to rare and difficult operations, rather than to those of every-day occurrence. As such it may be said to be an advanced work on operative surgery. Surgeons will find in the present volume those chapters devoted to operations on the stomach largely rewritten and special attention paid to the anatomy of the lymphatics of the gastro-intestinal tract. A new chapter is added on the treatment of tumors in general, whilst many others have received new and special attention.

Diseases of Children. By various authors. Edited by ARCHIBALD E. GARROD, D.M., M.A., F.R.C.P., F.R.S.; FREDERICK E. BATTEN, M.D., M.A., F.R.C.P. and HUGH THURSFIELD, D.M., M.A., F.R.C.P. Illustrated. Price, \$8.00. Toronto: The Macmillan Company of Canada, Limited.

The list of contributors to this handsome and comprehensive volume embraces the names of many well-known physicians, especially many having prominent connection with hospitals for sick children in London, England. Its extent is seen in 1,184 pages, 182 illustrations, and two colored plates. The editors have been happy in their selection of collaborators whose peculiar attention to special portions of the department of children's diseases have qualified them to write with undoubted authority. In this volume then, the present state of the knowledge of children's diseases is abundantly and comprehensively set forth, making for completeness which has hitherto not been approached. A work of such far-reaching and absorbing scope cannot but be appreciated by the medical faculty.

International Clinics. Vol. I. XXIII. Series. Philadelphia and Montreal: J. B. Lippincott.

Nineteen papers complete the information which this copy of *International Clinics* includes, and the final one is the yearly review of all that has been produced in each branch of medical science during the year. The summary is probably the most valuable paper in this issue.

David Summerville has written a short but very instructive article on Intestinal Intoxication, showing the parallel action of ferments and of bacteria, but proving that the endproducts produced by the germs are highly toxic. His paper is one of the best in the volume.

Rugh describes and illustrates his results in Potts' disease, by performing the operation advised by Albee; the method is now historical and the improvement in the patients most satisfactory.

The papers on Poliomyelitis, Gall Stones, Scarlet Fever, Retarded Mental Degeneration in Children, and Care During Gestation are valuable as giving a summary of our knowledge at the present time of these conditions.

Among new procedures or methods referred to in other papers are (1) the fact that tenderness at the right rectal colic margin is a sign of appendicitis, the examination being made by rectum (Reder); (2) Aneurisms are curable by spinal percussion (Abrams); (3) Transverse incision is best in Lepectomy and Epigastric hernias (Ginsburg); (4) Bilateral cerebral abscess may occur (Dennis).

A series of other papers are less scientific but interesting, especially that on the Deterioration of the Caucasian Race, by Irvin

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

Obstetrics: Arthur C. Hendrick.

Pathology and Public Health: John A. Amyot, Chas. J. C. O. Hastings, O. R. Mabey, Geo. Nasmyth.

Physiologic Therapeutics: J. Harvey Todd.

Psychiatry: Ernest Jones, W. C. Herrman.

Ophthalmology: D. N. MacLennan, W. H. Lowry.

Rhinology, Laryngology and Otol-ogy: Geoffrey Boyd, Gilbert Royce.

Gynecology: F. W. Marlow, W. B. Hendry.

Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.

Anesthetics: Samuel Johnston

VOL. XLI.

TORONTO, NOVEMBER, 1913.

No.

COMMENT FROM MONTH TO MONTH

The Police Control of Prostitution consists not in statutory or common law, but in police power, and only reaches the public prostitute. It cannot reach or control prostitution in general. It is but a factor in the enforcement of the law. Until something better is devised the police must deal with this social evil.

Suppression and regulation are the alternative methods to be chosen, or both; but both to date have been tried and have not proven satisfactory in different localities.

In the suppression of this vice of prostitution we cannot get away from the concrete fact, as Peterkin puts it, that the sexual instinct is an immutable law of nature. Therefore, it is moving against nature to attempt to suppress this instinct.

Suppression of the public vice simply drives the prostitute to another locality, and it is quite questionable whether any general good is accomplished.

Therefore, whilst admitting that suppression is correct in theory, it does not appear to have proven itself in practice.

The problem is a national one. Each community should be compelled to look after its own. It will do no good to simply drive them out of one community for them to find "homes" in another.

It is a moral and a public health question, and as such must be looked after by the police officer and health officer, and is not to be solved by either without the aid of the other.

Much good will be accomplished when all venereal diseases, like every preventable disease of whatever nature, are required to be reported to the medical officer of health.

Until the social evil problem becomes established upon a scientific and systematic basis, all good moralists, as well as all good physicians, will hope that the efforts put forth will result in great good to the nation at large.

The Care of the Child Before School Age was the subject of a timely and important paper by one Dr. David Forsyth before the conference on infant mortality, held in London last August. This is a subject possibly of even greater importance than the medical supervision of elementary school children.

In Great Britain and America nothing so far seems to have been done in this direction, although it has been well known that much physical deterioration overtakes children before the fifth year of age.

It seems, therefore, if medical supervision of the school child is essential, it must be even more so for the child prior to school life, as every child should have equal opportunity to enter upon school life without any handicap.

Possibly this will be future work for the municipality, that all children will come under the surveillance of the medical officer of health.

Dr. Forsyth outlined the scheme followed by the Westminster Health Society in Westminster, which keeps every child under medical supervision from the time of its birth until its fifth year. This work, however, is too important to leave to voluntary societies, and must necessarily in the future, when it is taken up in real earnest, come within the domain of the municipal officer of health.

There can be no more insistent work in any community, and he will be a wise officer of health who early recognizes this means of grappling with the problem of infant mortality.

Editorial Notes

ONTARIO MEDICAL ASSOCIATION

Abstract of minutes of annual meeting of the Ontario Medical Association, held in London, June 26th, 1913.

The President, Dr. C. F. McGillvray, occupied the chair. Communications were read by the Secretary, Dr. F. Arnold Clarkson (1) from the Huron Medical Society, asking that steps be taken to federate all the county societies with the Provincial Association. On motion of Dr. Bingham, seconded by Dr. Mullin, the following committee were appointed to bring in a report at next meeting: President, Vice-President, Secretary and Drs. Moore, Wallace and Moorehouse (London). (2) From the National Sanitarium concerning the action of the Ontario Medical Association at its last meeting.

Secretary Ontario Medical Association, Toronto:

DEAR SIR,—Your letter of 28th May, forwarding copy of resolution of the Ontario Medical Association, has been duly received and considered by the Board of The National Sanitarium Association, and I am instructed to write as follows:

The Board feels that the action taken by the Medical Association is altogether unusual, and the Board does not believe that any incident or occurrence at the Toronto General Hospital, St. Michael's, the Isolation or any other hospital occupying a similar position has heretofore received the attention of the Medical Association.

The subject of the resolution, if at all a proper one to be considered by the Medical Association, should, in the opinion of the Board, have been impartially investigated before they undertook to pass judgment upon it.

Our Board had no notice of the resolution proposed by Dr. McPhedran, and no proper opportunity to submit evidence.

Our Board do not at present deem it necessary to go into details of the subject matter of the resolution, but may briefly refer to the following:

Dr. Caulfield took exception to the publication of an extract from his official report of February 23rd, 1912, to the trustees, and

made that the principal ground for tendering his resignation, to take effect in six months' time.

In view of the character of his letter, and for other important reasons, it was decided by the Board to terminate his engagement forthwith and to pay him a sum equivalent to six months' salary.

The Board, through its Secretary, closed the laboratory and placed it in charge of the physician-in-chief.

So far as his work in the laboratory was concerned, the only request Dr. Caulfield made on leaving was that everything should be left undisturbed for four days. Not only was this done, but for a period of two weeks nothing was disturbed, the motor being allowed to run and the gas kept burning.

The physician-in-chief then considered it necessary for the safety of all the inmates of the hospital that the growing tubercular material in the basement be sterilized. Through some misunderstanding, which the Board exceedingly regrets, tubes containing cultures, in the upper laboratory, were similarly treated.

Our Board feels, and your Association will appreciate, that the loss of these cultures is a most serious matter for the Sanitarium Association.

The trustees paid Dr. Caulfield a sum equivalent to six months' salary, notwithstanding the fact that after a service of only some three years in their employ, he had previously been given leave of absence for six months, to pursue his studies in Europe, his full salary being paid during that period.

The trustees undertook the further burden of paying the salary of a substitute to carry on the work during Dr. Caulfield's absence.

The trustees have further shown their interest and sympathy in connection with laboratory work in a very practical way—\$1,500 having been contributed from amongst their number towards Dr. Caulfield's salary, so that it might not be a burden upon the institution.

The trustees believe the real nature and value of the deliverance of the Medical Association will be better understood and appreciated when the facts are made clear, and especially when it becomes known that the member who proposed the resolution, which reflected unfairly on the National Sanitarium Association, afterwards accepted the chairmanship of the committee appointed to report upon his own resolution, and that he some six months ago had a serious difference with the Board regarding his proposed

appointment as consultant-physician to the Muskoka Hospitals of the National Sanitarium Association.

I am,

Yours faithfully,

(Sgd.)

R. DUNBAR,

Sec.-Treas.

P.S.—A copy of the above letter is being forwarded to the Secretary of the Association, and one to the chairman of the committee, who will doubtless bring it before the other members of the committee and before the Medical Association. R. D.

Dr. Adam Wright gave notice of motion re separation of the Ontario Medical Association from the Canadian Medical Association. This, with the other notices of motion of the previous meeting, was laid over until next year.

The next meeting will be in Toronto in May, 1914.

THE RELATIVE VALUE OF TURTLE TUBERCULIN IN THE TREATMENT OF TUBERCULOSIS

“The treatment of individual diseases with medicines or by methods having a selective curative action has until recent years been limited. With the establishment of the germ theory, and vaccine therapy of certain diseases and the development of information concerning immunity, new methods of specific treatment have been made possible, and are now practiced under the terms of serum and vaccine therapy.” This is part of an introductory paragraph of a valuable contribution on the above subject appearing in the *New York Medical Journal* for September 13th, 1913, by Doctors J. W. Beattie, of New Hampshire, and E. E. Meyers, of 418 Central Park West, New York City.

The authors mention the fact that to Robert Koch belongs the honor of giving to the world 23 years ago tuberculin, which was the first great advance in the diagnosis of tuberculosis. Prior to this, the disease was generally recognized as a fatal malady; it was not diagnosed until the disease was advanced and the symptoms marked and then death was required to substantiate the diagnosis. His discovery of the difference in the action of the remedy on the healthy and the tuberculous has proven to be one of the most important discoveries in the modern study of tuberculosis. This discovery gave the profession the tuberculin test which has not only made possible an early diagnosis of the presence of tuberculosis, but

has also given us a more thorough understanding of the nature of the disease and the essentials of its prevention, as well as led to its specific treatment.

Drs. Beattie and Myers quote von Ruck's reference to the claims of Friedmann for the superior value of a living tubercle bacilli in the treatment of tuberculosis, and deprecates the Berlin doctor's spectacular advertising propaganda in the daily press. Von Ruck said "inasmuch as living tubercle bacilli of the human type have been found in vaccinated cattle both in their flesh and in their milk, as long as three years after their intravenous injection, the objection to the use of the living tubercle bacilli as an antigen, or vaccine for prophylactic purposes in the human subject is well founded. A more formidable objection, is however, the danger of virulence."

They aver Prof. Piorkowski, working along the lines of Prof. Koch's discovery, isolated a living antigen in the form of tubercle bacilli recovered from a turtle, as far back as 1903 without in any manner questioning its non-virulence. Since that time he has continued his research along this line, and has at last succeeded in perfecting a tuberculin produced from the tubercle bacilli of a deep sea turtle which is non-virulent, and with which, he has successfully experimented with thousands of cases during the past few years at his laboratory in Berlin.

Further quoting Piorkowski, the authors refer to his lecture delivered at the Royal Hospital for the Diseases of the Chest, London, Eng., on April 1st, 1913 (*British Journal of Tuberculin*, July issue, 1913). On discussing his turtle tuberculin, Piorkowski said, "We must differentiate between mammals which produce their offspring alive, and the class to which human beings and oxen belong, and birds, i.e., that is, animals which lay eggs, thirdly, reptiles, which possess horny or long integument and also lay eggs. Lizards, crocodiles and turtles belong to that last class. Finally, we have to think of fishes which breathe as long as they are young through gills or by their lungs, and also lay eggs. We thus see very clearly that resemblances are to be found only among lung-breathing animals, and it is for this reason, probably, that the results described are obtained on the injection of tubercle bacilli or similar kind. It became very evident that turtles were especially adapted for our purpose."

In further describing his work along this line Piorkowski says, "it is very noteworthy that the turtle tubercle bacillus in its further behavior, both culturally and morphologically, displayed an extraordinary resemblance to the human tubercle bacillus. Its growth at 37 degrees F. is remarkably characteristic. The main

point about this strain is that it can be used without risk of any manifestations—a circumstance which may be ascribed to the fact that for the last ten years it has been reinoculated afresh daily, and thus has acquired generally an extraordinary innocuousness, becoming both avirulent and atoxic.”

The authors in explaining the biological action of Piorkowski's turtle tuberculin quote the latter as follows: “Let us for example, consider atoxic action a little more closely. When a poison enters the body, e.g., tubercle toxin—the first point concerns the existence of receptors which can take up the tubercular poison. If these do not exist, no infection by tubercle bacilli can occur, for the organism possesses congenital immunity towards the action of these bacilli.

The harmless turtle tuberculous toxin combines with the receptors, and the combination is thrown off into the blood as antitoxin. New receptors are formed in large quantity, but they are capable of seizing not only the turtle tubercle bacilli, with which they have been hitherto dealing, but also human bacilli, and thus render them harmless. If there is a profuse formation of new receptors, and if the human tubercle bacilli have increased unduly, complete recovery may be affected. The rationale of the cure is along these lines. There is also the additional advantage that turtle tubercle bacilli are innocuous and harmless, and therefore this method is especially well adapted for protecting inoculation.

Recent investigations with turtle tuberculin, in Prof. Piorkowski's laboratories, made by the authors show that tubercle bacilli, when grown in the blood serum of (cold blooded animals) turtles change quite distinctively its bacteriological characteristics, particularly in lessening its virulence and at the same time increasing its power to form antibodies in the blood of tuberculous patients. This turtle tuberculin acts as a direct stimulant to the antibodies of tuberculosis, exerting far greater beneficial effects than human tuberculin, even when the latter is given in the most carefully graded and guarded doses. Furthermore, turtle tuberculin produces only a very slight reaction, besides it possesses far greater immunizing properties than does human tuberculin with none of the latter's untoward effects.

According to the author's experience, the smallest immunizing dose was one minim of turtle tuberculin administered in 16 minims of normal salt solution. The interval between doses depends upon the recurrence or exacerbation of original symptoms, which is usually about seven days. Very slight reactions, such as a rise of temperature to 100° F., and more or less languor for about 24 hours following the injection are the only reactions which occur even with a maximum dose.

The best site for injection of turtle tuberculin is in the fold of the gluteal region between the glutens maximus and minimus muscles, which location facilitates absorption.

In closing, the authors make the following comparisons:

LOCAL REACTION.

Human Tuberculin.

Redness and infiltration begin in area of injection in from four to eight hours.
No thickening of the skin.
Area of infiltration usually very tender.
Abscess sometimes follows injection.
Adjacent lymph glands swollen.

Human Tuberculin.

Doses smaller.
Effect slower.
Reaction marked.
Length of treatment prolonged.

Hygienic Treatment.

Not always feasible.
Treatment prolonged.
Necessitating interference with daily vocation.
Results not always satisfactory.
Recurrence frequent.

Turtle Tuberculin.

Redness and infiltration begin in area of an injection in twelve hours.
Slight elevation and thickening of skin.
Area of infiltration is not tender.
No abscess follows at point where needle pierces skin.
Lymph glands not swollen.

Turtle Tuberculin.

Dosage greater.
Effect more rapid.
Reaction slight.
Length of treatment short.

Turtle Tuberculin Treatment.

Always feasible.
Treatment shortened.
Does not interfere with daily vocation.
Results very encouraging.
Recurrence improbable.

CANADIAN MEDICAL ASSOCIATION

The next annual meeting of the Canadian Medical Association will be held in St. John, N.B., July 7th-10th, 1914.

News Items

Victoria, B.C., has plans issued for a new general hospital.

Dr. John Fry, Selkirk, Ontario, is dead. He was born in 1836.

Dr. H. H. Chown, Winnipeg, has gone for an extended trip abroad.

The Manitoba Medical Council has reduced its registration fee from \$125 to \$100.

The death of Dr. J. D. Stevenson, Toronto, occurred on the 8th of October. He was eighty-six years of age.

Dr. Chas. Doherty, Superintendent of the Hospital for the Insane, New Westminster, B.C., has been visiting in Toronto.

The Manitoba Medical Council reports that so far it has been able to prevent legal status being given to osteopaths and chiropractors.

Toronto had 133 cases of typhoid fever in September, twice as many as in the corresponding month of 1912. Fully fifty per cent. of the cases were contracted in outside points.

Dr. Fred Montizambert, Director-General of Public Health, whilst on his annual western tour of inspection selected a site for a new quarantine building at William Head Station.

Montreal has had a small epidemic of infantile paralysis. There were about twenty-five cases with six deaths. Prompt notification to the health officer no doubt saved the city from a more serious epidemic.

Dr. W. H. B. Aikins, Toronto, attended the Seventeenth International Medical Congress, and spent some time in London and Paris investigating the recent advances in radium therapy at the laboratories there. He returned home the end of September.

Dr. Maude Abbott has returned to Montreal after attending the International Medical Congress and spending some months on the continent. In Italy, Dr. Abbott established a branch museum of the International Association of Medical Museums of which she is permanent secretary.

Dr. G. A. Kennedy, Macleod, Alberta, died in the Winnipeg General Hospital, on the morning of the 8th of October. Dr. Kennedy who was well-known in Eastern Canada, was born in the town of Dundas in 1847. He was a Surgeon-Captain in the N. W. M. P., and surgeon to the Canadian Pacific Railway.

The late James Ross, Montreal, left \$400,000 in public benefactions. Some of these items are as follows: McGill University, \$100,000; Montreal Art Association, \$100,000; Royal Victoria Hospital, \$50,000; Montreal General Hospital, \$50,000; Montreal Maternity Hospital, \$50,000; Royal Alexandra Hospital, \$25,000; Ross Memorial Hospital, Lindsay, Ontario, \$25,000.

The new wings of the Winnipeg General Hospital which, exclusive of furnishings and equipment, cost \$650,000, were formally opened by Mayor Deacon on the 29th of September. The accommodation in the Winnipeg Hospital is now 478 beds.

The third annual congress of the Canadian Public Health Association met in Regina, Sask., the 18th, 19th and 20th September, under the presidency of Dr. J. W. S. McCullough, Toronto. A resolution was adopted favoring the admission of advanced cases of tuberculosis into all general hospitals receiving governmental grants. Copies of this resolution are to be forwarded to the provincial authorities. Another resolution urgently requests the Dominion Government to take into consideration the danger to the public health through the increasing number of immigrants coming into Canada. The following officers were elected: President, Dr. M. M. Seymour, Regina; Secretary, Major Lorne Drum, Ottawa; Treasurer, Dr. Geo. D. Porter, Toronto; Vice-Presidents, Dr. J. D. Page, Quebec; T. Aird Murray, Toronto; Dr. Duncan Anderson, Toronto; Prof. J. A. Amyot, Toronto; Dr. A. R. Whitla, Edmonton. Port Arthur and Fort William were selected for the places of meeting in 1914.



■ Are you particular as to the condition of the iron in your Bland preparations?

Frosst's Perfected Bland Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Publisher's Department

CANCER.—Dr. Lazarus Barlow, of the Middlesex Hospital, said he did not wish to push this question too far, but it was perfectly clear to his mind that, in their future work with regard to cancer, whether they considered it from the point of view of chronic irritation or of chemical pathology, it was necessary to determine whether or not radium played a part in the problem. Further, it had been found in the laboratory that there was more potassium in cancerous than in non-cancerous persons. Thus he might fairly claim to have given the kaleidoscope a new turn.

FILTER TALK NO. 2.—Boiled water is a massacre of microbes. It kills 'em, but doesn't bury the dead. *You* do that when you drink it. Raw lake-water is safe to-day—perhaps. A death trap to-morrow. You never know which. Bottled water is not reliable. Especially after standing a week. The boiled or distilled stuff is hard to drink. Honest, isn't it? And it isn't always safe. Buy a *Jarvis* and *be sure*. 'Phone North 6658—to-day—now, and have a representative call, or call yourself at the office and let us give you a demonstration.

More or less interest always attaches to anonymous poetic productions, even when the quality is not very high; but the following lines, found in 1807 near one of the skeletons in the Royal College of Surgeons, London, aroused unusual curiosity, not only on account of the unique theme, but principally because of the poetic perfection displayed. Great efforts were made to ascertain the identity of the writer, and at one time a reward of one hundred guineas was offered for the discovery of the author, but he has ever remained a mystery.

Behold this ruin! 'Twas a skull,
Once of ethereal spirit full.
This narrow cell was Life's retreat,
This space was Thought's mysterious seat.
What beauteous visions filled this spot,
What dreams of pleasure, long forgot!
Nor hope, nor love, nor joy, nor fear
Have left one trace of record here.



Motor and Travelling Coats Dusters and Rugs

Not factory-made garments, but cut and tailored by experts in the West-end of London

MOTOR COATS

Silk Paramattas, Gabardines, Homespun Tweeds and Cashmere cloths. Single and double-breasted styles with military collars and straps on cuffs. Greys, tans, fawns, drabs, greens and khaki colors. - **\$8.50 to \$30.**

MOTOR DUSTERS

Cotton, silk, linen, mohair and alpaca in loose fitting styles with plain or belted backs and wind shields in cuffs. **\$2 to \$15.**

MOTOR RUGS

Light and medium weights in broadcloths and homespuns in plaids and tartans. - **\$3 to \$10.**

**PANAMAS, BANGKOKS, SAILORS AND
SOFT BRAID STRAWS. - \$2 TO \$50**

Motor Caps and Gauntlets; Canes and Umbrellas

Fairweathers Limited

84-86 Yonge St., Toronto

MONTREAL

- - - - -

WINNIPEG

Beneath this mouldering canopy
Once shone the bright and busy eye;
But—start not at the dismal void—
If social love that eye employed;
If with no lawless fire it gleamed,
But through the dews of kindness beamed,
That eye shall be forever bright
When stars and suns are sunk in night.

Within this hollow cavern hung
The ready, swift, and tuneful tongue;
If Falsehood's honey it disdained,
And where it could not praise was chained;
If bold in Virtue's cause it spoke,
Yet gentle concord never broke,
This silent tongue shall plead for thee
When time unveils eternity.

Say, did these fingers delve the mine?
Or with its envied rubies shine?
To hew the rock or wear the gem
Can little now avail them;
But if the page of truth they sought,
Or comfort to the mourner brought,
These hands a richer meed shall claim
Than all that wait on wealth or fame.

Avails it whether bare or shod
These feet the paths of duty trod?
If from the bowers of ease they fled,
To seek Affliction's humble shed;
If Grandeur's guilty bribe they spurned,
And home to Virtue's cot returned,
These feet with angel's wings shall vie,
And tread the palace of the sky.

—From John Janvier Black's book, "Forty Years in the Medical Profession."



You Are Welcome

If we could induce every one of the hundred million persons in this country and Canada to visit "The Home of Shredded Wheat" and witness the process of making Shredded Wheat Biscuit and Triscuit we would not need to print this advertisement—or any other advertisement. Nearly one hundred thousand visitors from every habitable portion of the globe pass through this factory every year.

They are impressed with the beauty and cleanliness of the factory. They are convinced of the wholesomeness, purity and nutritive value of

Shredded Wheat

It is the one universal staple cereal food, eaten in all lands, always clean, always pure, always the same. Delicious for breakfast when heated in the oven (to restore crispness) and served with milk or cream, or for any meal in combination with fresh fruits.

The Only Cereal Breakfast Food Made in Biscuit Form

Made only by

THE CANADIAN SHREDDED WHEAT CO. LTD. NIAGARA FALLS, ONT.

Toronto Office: 49 Wellington St. East

Catching cold is an indication of an impaired activity of the skin, and occurs most frequently with people of weakened capillary circulation, the result of wearing woollen undergarments. Such affections as catarrh, bronchitis and pneumonia are traceable to the same predisposing cause. The retention of waste material, attending the wearing of woollens next the skin, gives rise to inflammatory diseases of internal organs, including Bright's disease. A change to the Dr. Deimel Underwear is usually followed by immediate results for the better. The skin, heretofore covered with a clammy layer of unabsorbed perspiration and debris, assumes a normally dry and elastic condition. It is, so to speak, toned up. Exposure is not felt so much, nor is it followed by attacks of cold; catarrhal and rheumatic tendencies disappear and the danger of pneumonia is greatly lessened. Within a short time the wearer wonders at the marvellous change for the better which has taken place in his general health, and is surprised that he ever could have worn woollen underwear.

THERAPEUTIC REMARKS ON DIABETES MELLITUS.—In the treatment of Diabetes Mellitus we distinguish between remedies for the disease itself and for complications which may arise. Within the last few years numerous preparations, promising a complete cure, have made their appearance, but none of them have been able to reduce and even eliminate sugar secretions as effectively as Sanol's Anti-Diabetes, a remedy which only within the last year has been put on the market in this country. This preparation is successfully applied in cases where sugar remains in spite of a diet free of carbo-hydrates. Experience has proven that this remedy has caused no bad effects whatever. Of course, an improvement without a strict observance of the diet regulations cannot be expected, but as this remedy is perfectly harmless and has been used with excellent results, it should be tried in every case of diabetes. After a course of from 5 to 8 weeks, during which time the strict diet has gradually been changed to a mixed diet, the toleration of carbo-hydrates will be noticed, and this favorable condition will remain even after the remedy is taken at longer intervals, to be finally dispensed with altogether.

Diabetics of advanced age showing symptoms of arterio-sclerosis and arthritis have derived great benefit from the continued use of Natr. Jodat, with Natr. Salicyl, taken in connection with Sanol's Anti-Diabetes.

The Remarkable Body-building Power of **BOVRIL**

In the experiments upon human subjects conducted under the direct control of one of the foremost physiologists of the day, and reported to the British Medical Association, Bovril was proved to possess the remarkable body-building power of from

10 to 20 times the amount taken

Bovril is the concentrated goodness of the best of beef. It is a wonderfully warming winter beverage; it builds up the weak constitution and strengthens the strong one; it guards against the grip; it checks colds and chills; it is cook's right hand in the kitchen; it is nurse's first aid in the sick room.

Buy a Bottle To-day

In the diagram the long block represents the body-building power derived from the amount of Bovril represented by the small block.

Dr. Deimel Underwear (LINEN-MESH)

FROM any point you choose to consider the subject, nothing WORSE was ever invented for a skin covering than wool in the form man gets it—non-absorbent—prickly—itchy—non-ventilating and shrinkable.

Can you imagine anything more uncomfortable to put next to the body? Yet a great many people wear it simply because they don't give the matter of underclothing much thought. What they do worry about are the Colds, Catarrh, Rheumatism, Bronchitis, etc., to which the wool wearing makes them subject.

If they thought about their underwear they would cease thinking about their health, because they would wear The Dr. Deimel Underclothing, which keeps the body dry, warm, comfortable and healthy.

Send for booklet and free sample of fabrics.

DEIMEL LINEN-MESH COMPANY

416 St. Catherine St. West.

∴

∴

MONTREAL, Can.

BRANCHES:

New York Washington, D. C. San Francisco Brooklyn Detroit London, Eng.

We also sell the Dr. Deimel Linen-Mesh Supporters.

There is doubtless a close relation between diabetes, arteriosclerosis and arthritis. Many a case of diabetes affecting the aged may be explained by arthrosclerotic changes of the vertebral and basilar arteries which are near the medulla, and their small branches supply the floor of the 4th ventricles, in which C. Bernhard found the diabetic centre. The above medication was useful in arthritic patients as well as in the sclerotic. Swelling of the joints disappeared notably thereby; the somewhat sclerotic antecedents in the arteries of the medulla were likewise influenced, and thereby the cure of diabetes was brought about.

For indigestion, dry and bitter taste in the mouth, loss of appetite, oppression in the abdominal region, flatulence, constipation, nothing equals Carlsbader salt, taken as hot as possible.

The use of Stront, bromat, will control nervousness, and its favorable influence upon the general condition of the patient, especially upon insomnia, irregular pulse, etc., will be noticeable after a few days.

It is a well-known fact that during the first days of strict diet, when all foods containing carbo-hydrates are prohibited, the patients complain of nervousness, irritation, palpitation of the heart, etc., symptoms which the physicians often take as preceding the state of coma, and, unfortunately, cause the diet to be interrupted. In such cases a prescription of Dionin will be found very beneficial.

For pruritis nothing is better than Natr. Salicyl. 45 grains daily, or the same amount of Aspirin.

PREVENTION OF POSTERIOR URETHRITIS.—It is said that the salicylate of sodium, though of comparatively little value in the inflammation of the anterior urethra, exerts a beneficial effect in posterior urethritis. Under its influence the urine rapidly clears, and the acute distressing symptoms disappear. It is upon the theory that this drug renders the urine markedly acid, and thereby helps in preventing the extension of the inflammation to the bladder and the production of cystitis. Apart from the administration of salicylate of sodium, the treatment must also be directed to combating the prominent symptoms of acute posterior urethritis, vesical tenesmus, terminal hemorrhage, etc. Sanmetto should be given, and the use of the hot sitz bath prescribed. Should the distress be very great, small doses of morphine may be administered.

Dominion Medical Monthly

And Ontario Medical Journal

VOL. XLI.

TORONTO, DECEMBER, 1913.

No. 6

Original Articles

PRESIDENT'S ADDRESS—DELIVERED BEFORE THE ACADEMY OF MEDICINE, TORONTO

MEDICAL EDUCATION—MEDICAL CONGRESS

BY HERBERT J. HAMILTON, M.D.

In the first place I wish to thank the Fellows of the Academy of Medicine for electing me to fill this important position for the present year. Whilst fully appreciating the honor they have done me I appreciate still more my own limitations, and recognise that the distinction carries with it certain responsibilities, not the least of which is that of selecting a subject for this address which will be of interest to the Academy as a whole. From this point of view I can think of nothing more appropriate than the question of medical education, which has recently given rise to a considerable amount of discussion throughout the medical world. Its efficiency is a matter of paramount and general importance, in that it tends to raise the standard of those entering the profession.

The Carnegie Committee on Medical Education has carefully investigated the condition of medical education, and has now published two exhaustive reports, one dealing with America, and the other with Great Britain and the Continent of Europe. An analysis of the results of this investigation indicates that, while the systems of medical education in vogue in the different countries vary within wide limits, one being superior to the others sometimes from one and sometimes from another point of view, no single system possesses such uniform advantages as to justify its being regarded as absolutely perfect. The publication of these reports has led to a consensus of opinion that higher standards are

desirable, more especially in America, both in preliminary attainments and in the qualifications for practice, and has already resulted in a considerable reduction in the number of medical schools in the United States, due to the closing of some which were badly conducted and imperfectly equipped.¹

It is obviously only reasonable to assume that the great advances which have been made in medical science during the last few decades, together with the increased facilities for education in other subjects, indicate the desirability of a corresponding progress in regard to medical education, and of the requirement of higher standards of qualification from those entering the profession.

Preliminary Education and Requirements.—In the recent Carnegie report on "Medical Education in Europe" stress is laid upon the point that the education of a physician is "primarily an educational, and not a medical question," and that the methods and results of professional teaching are dependent upon the general educational system of the country itself. It is unanimously agreed that, on the whole, professional training in Germany is on a high level, and the Committee considers that the excellence of the education received in the German secondary (or collegiate) school is mainly responsible for this. There can be no question that the most satisfactory results as regards medical education are obtained only when it is based upon a good system of general education.

The requirements for admission to medical schools and colleges vary in different countries. In England a minimum preliminary standard, comprising four elementary subjects, three of them being languages, has been indirectly established. It is decidedly low. No medical school holds an examination in general subjects, but the General Medical Council and other qualifying bodies publish lists of examinations which they are willing to accept. These include the local and matriculation examinations of the Universities of Oxford and Cambridge. In France it is compulsory that the student shall have obtained the *Baccalauréat* on leaving the *Lycée* or secondary school, and in addition have devoted a year to the study of the elementary sciences of physics, chemistry and biology.

As a result of the publication of the Carnegie report and the recommendations of the various American medical societies,² the standard of admission has recently been raised in a large proportion of the medical schools in the United States, and some of the

¹Colwell: Journ. Amer. Med. Assoc., 1912, lviii, 654.

²Colwell: loc cit.

State examining boards have now adopted higher preliminary requirements. These include a four-year course at a high school, and in addition a year's work in physics, chemistry and biology. As regards Toronto, it has been suggested by the President of the University that senior matriculation shall be required of students who wish to enter the Faculty of Medicine of the University of Toronto, and this recommendation has been endorsed by the Medical Faculty. I understand that passing junior matriculation in Arts still admits the candidate to the Faculty of Medicine.

The Medical Curriculum.—The great advances in medicine and surgery, and in the various sciences which stand in close relationship to them, have resulted in increased demands upon the time of the student, and in constant additions to the medical curriculum, which has now become so overburdened that revision is imperative. When one considers that it is absolutely essential that the student should not neglect the fundamental sciences of anatomy, physiology, pathology and bacteriology, and that in addition he is expected to acquire some knowledge of medicine, surgery, pharmacology, physics, chemistry, biology, hygiene and preventive medicine, gynecology, obstetrics, pediatrics, forensic medicine, and the various systems of treatment, it is obvious that his task is insurmountable, and we are confronted with the problem of finding some means of relieving the congestion. The most practical way of solving this problem which has been hitherto suggested is that adopted in France, and more recently in the United States, namely, that the student is required to have devoted at least a year to the study of physics, chemistry and biology before applying for admission to the medical school. In France the teaching of these subjects is undertaken by physicists and chemists in the University Faculty of Science, and not in the Faculty of Medicine by doctors acquainted with these sciences, but not specialists in them. The Carnegie Committee recommends the adoption of this plan, as the relegation of the teaching of physics, chemistry and biology to the elementary or secondary school would economise the time of the student, and thus facilitate more thorough training in the subjects included in the more strict definition of medicine.

I wish to emphasize the fact that amongst the English-speaking races the study of modern languages does not at present occupy as prominent a place as is advisable, in view of the many important contributions to medical literature which are constantly appearing in them.

Specialization.—Specialization, in the modern acceptation of the term, may be said to date from the latter half of the nineteenth century, and is a necessary consequence of the great progress which has recently been made in medicine and surgery, and in the various sciences which are now regarded as subsidiary or auxiliary to them. Coincident with the developments in internal medicine, surgery and pathology there has been a corresponding improvement in the methods of diagnosis and systems of treatment, which renders it increasingly difficult—not to say impossible—to keep in touch with the enormous mass of literature which is constantly being published in connection with the various subjects which are now included under the general definition of medicine. This has resulted in the dividing up of both internal medicine and surgery into a series of single specialties, the number of which is steadily increasing. In addition the modern methods of microscopical, chemical and physical diagnosis have now become extremely elaborate, require special study and technique, and already possess an extensive literature. The various methods of treatment also represent distinct specialties, which are continually being added to and subdivided.

It will thus be seen that the great advances in medical knowledge have contributed to and necessitated the development of specialization, but while it is manifestly impossible for any one man to be intimately acquainted with the details of all the various specialties, it is advisable that specialization should be based upon a general training in the principles of general medicine. Fürst³ emphasizes the fact that if specialization is carried too far there is risk of forgetting the unity of medicine as a whole, and that in the consideration of individual factors alone the inter-relationship of the various organs and systems of the human body may sometimes be lost sight of.

Laboratory Work.—The laboratory department has for some considerable time occupied a most important position in the equipment of the modern medical school, and the investigations carried out in it have been of the greatest assistance in solving many of the problems which confront the physician and surgeon. The employment of laboratory methods of research has rendered it possible to make a practically certain diagnosis in many diseases, and in many instances they also furnish definite indications for the treatment of these diseases. It, therefore, follows that an efficiently equipped pathological laboratory is now generally recognized as an essential part of the organization of a hospital, and

³Fürst, M.: "Der Arzt." Leipzig 1909, p. 52.

that a practical course in laboratory work is regarded as one of the most valuable of the recent additions to the medical curriculum. The original researches in chemistry and bacteriology, associated with experimental work, which are now looked upon as essentials in the routine work of every hospital, have played and are playing a very prominent rôle in the great developments in preventive medicine, which is progressively becoming one of the most important branches of medical science.

Clinical Training.—Whilst fully recognizing the fact that the advances in methods of diagnosis and treatment render it imperative that the medical curriculum should include a certain amount of instruction in laboratory work, and that the student should at least acquire a sufficient degree of knowledge in this connection to enable him to understand the various reports and analyses which may from time to time be submitted to him in the course of his professional practice, and to interpret them intelligently in relation to the diagnosis, prognosis and treatment of the cases under consideration, at the same time I am of opinion that it is inadvisable to give undue prominence to the purely scientific side of medical training. In his presidential address at the meeting of the Canadian Medical Association at London, Ontario, Dr. McCallum¹ expressed the opinion that in the report of the Carnegie Committee too much stress is laid on the importance of laboratory instruction in medical education. He thinks that there is a tendency for it to assume undue prominence, and to occupy so much time that comparatively little is left for the clinical work and personal contact with patients, which is so necessary as a preparation for independent practice, and I may say that I am quite in accordance with this view.

It is unfortunate that such a sharp line of demarcation is commonly drawn between theoretical and practical work. The scientific investigation of many of the problems connected with disease can most effectively be carried out in well-equipped laboratories in close relationship to hospital clinics, but the work done in the laboratory should not be looked upon as an entity, entirely distinct and separate from the clinical work, but should rather be regarded as complementary to it. The ultimate object of both departments is or should be the same, namely, caring for the patient in the best possible manner, and the carrying out of investigations with a view to ascertaining the most effectual methods of preventing and curing disease. The instruction given in the laboratory, except in cases in which the student intends to devote

¹McCallum, H. A.: Canada Med. Assoc. Journ., July, 1913, p. 547.

himself entirely to scientific investigation, is merely part of the preparation for the clinical work to be subsequently undertaken in the wards of the hospital, the results of the scientific researches carried out in the laboratory affording indications for more efficient methods of dealing with the practical problems encountered in the latter department.

I should here like to point out that in my opinion it is highly desirable that there should be mutual co-operation between the clinician and the laboratory worker, and that the clinical methods of diagnosis should not be abandoned altogether in favor of laboratory methods. Too many lives have been sacrificed by delaying an operation until a definite diagnosis has been made by means of elaborate and prolonged laboratory investigations. In the first place all the ordinary methods of clinical diagnosis, such as palpation, percussion, etc., should be exhausted, laboratory methods being employed subsequently in order to confirm what has been discovered by clinical ones. If the results of clinical examination indicate that an operation is advisable, make your diagnosis and act upon it, and do not let your patient die from septic peritonitis or some such cause while you are waiting for a report from the laboratory.

In this connection it may be pointed out that the function of the hospital clinic consists not only in caring for the sick and in carrying out scientific investigations, but also in training future practitioners of medicine, and it cannot be too strongly emphasized that the most valuable part of this training from a practical point of view is that which can be obtained only by direct contact with the patient. In the laboratory the student learns his work by actually doing it himself, not by merely reading about it or even by seeing demonstrations, and this method of teaching is equally applicable to clinical work. I am also strongly of opinion that the work done during the period devoted to clinical study should not be limited to the study of patients as belonging to a class, but should include that of individual cases, in accordance with the rule which prevails in Great Britain. The student is required to carry out the observation of the patient from all points of view, to note the symptoms present, make the various examinations necessary for diagnosis, sift the information thus obtained in the light of the history, watch the progress and development of the individual case, formulate his own conclusions, and suggest whatever procedure his experience indicates, all being done under the supervision of an experienced physician or surgeon. The practical value of such training, even if only a comparatively small number of cases come

under the observation of the student, is immeasurably superior to that obtained from the carrying out of a large number of physical examinations or laboratory examinations, whilst the care of the patient in other respects is left to others. I think it highly desirable that in a clinical service in medicine or surgery the students should be encouraged to take individual cases and work them out upon a scientific basis. This should include the clinical observation of the case throughout, and the performance of the various investigations required, together with a study of the pathology.

It is highly desirable that every student who comes up for his final examination should be required to go through practical training in a good hospital for a certain length of time before receiving a license to practise on his own account, and the competition amongst graduates for internships shows that they fully appreciate the value of such experience. In the Carnegie report it is stated that the conditions as regards clinical training are more favorable in Great Britain than anywhere else, the system of medical education being based upon the opinion that if it is to attain a maximum degree of efficiency it is essential that the student should come freely into contact with patients, and thus become acquainted with the actual manifestations of disease. If this practical experience is not gained in the hospital under competent supervision it has to be acquired subsequently in private practice without supervision, when mistakes may have disastrous and even fatal results.

I believe that from the point of view of the student there is at the present time a considerable amount of dissatisfaction and lack of confidence in this connection, and many of them fully appreciate the fact that although they have devoted five years to the study of medicine they have not at any time during this period been in sufficiently intimate relationship with the clinical work of the hospital as to fit them for undertaking private practice. The system outlined above teaches the student to look upon the patient he is examining as *his* patient, and to feel that to a certain extent he himself is responsible for making the diagnosis, for watching the progress of the case, and for prescribing appropriate treatment. He thus gradually acquires confidence, and with it that faculty of inspiring confidence in the patient, which is so essential to success in private practice.

It has been suggested by some that the clinical teaching in our hospitals should be done by professors who devote their whole time to clinical teaching, and undertake no private practice whatever, no doubt occupying a chair in the University, and receiving

adequate remuneration. Their work is to consist of teaching, setting examinations, and determining the qualifications for practice. In my opinion such an arrangement as this would be by no means an ideal one. Whilst it is, of course, essential that the clinician should be thoroughly acquainted with theoretical medicine and hospital practice, it is at the same time highly desirable that his experience should not have brought him only into contact with hospital patients, but that he should also have had ample opportunities of coming into close contact with private patients, and of thus acquiring the qualities which make for success in that line of work. It would be as easy to drive a square peg into a round hole as to find a man who has never himself personally had to deal with patients of this class, who is capable of imparting to students the tact and intuition which are so essential in dealing with them.

Post-Graduate Instruction.—Post-graduate teaching, in some form or other, and to a limited extent has long been practised in Europe, more especially in Germany. Qualified practitioners of medicine, particularly those practising in remote country districts, are now realizing more and more the importance of keeping in touch with the progress of modern medical science, and efforts are everywhere being made to systematise post-graduate instruction, and render it more general.

The most efficient organization for this form of teaching exists in Germany, and is known as the Central Committee for Post-Graduate Medical Education. In addition to organizing courses of instruction at certain central points, it also arranges gratuitous local courses for those practitioners who are unable to leave their homes for any length of time. Another central organization is the Kaiserin Friedrich Haus at Berlin.⁵ Vacation courses are also held at the universities, and in addition any qualified individual who wishes to do so can obtain permission to see the work done at the various hospitals and laboratories.

In France no special arrangements have been made for post-graduate teaching, but visitors are welcomed at the clinics and laboratories. As regards England, an association has been formed in London, which issues tickets, admitting to all clinics, clinical lectures, operations and autopsies at eight general and six special hospitals. Post-graduate courses are given at the National Hospital for the Paralysed and Epileptic, Queen Square, the Polyclinic, St. Bartholomew's Hospital, the West London Hospital, etc., and

⁵Carnegie Committee: "Medical Education in Europe."

also at the Schools of Tropical Medicine at both London and Liverpool.

Arnold⁶ has recently published a paper dealing with the post-graduate medical school at Harvard, which forms a department of the University. He is of opinion that this connection with the University is an ideal arrangement, and that it is desirable that the post-graduate school and the medical school proper should constitute one and the same educational institution, with the same equipment and the same teachers.

In regard to the standard of admission to a post-graduate school it should be borne in mind that the primary object of such an establishment is to afford an opportunity to qualified practitioners of increasing their knowledge of medicine, and that the more inadequate their previous medical education has been the more do they need such an opportunity. At the same time, whilst it is not desirable to have minimum requirements for admission, it is advisable to have such requirements for the individual courses which are held, the authorities deciding which course any particular student is qualified to take.

Arnold suggests the possibility of the post-graduate schools ultimately conferring an advanced degree, above the present M.D., but this would, of course, entail more definite rules and regulations as regards requirements. The present system of granting certificates is in some respects more or less unsatisfactory, as in many cases the possession of a certificate means nothing more than that the student has paid the fees for a certain course.

Post-graduate instruction represents an important factor in medical education, in that it renders it possible to raise the standard of the physicians and surgeons who are already in practice, and thus contributes very materially to the well-being of the community in general.

I should like to revert for a few moments to the consideration of laboratory work. In this country there is at present no regular and adequate remuneration for scientific research, and it is becoming an important question as to whether or not it should be subsidised by the State. I wish very emphatically to express the opinion that there is a very urgent necessity for the establishment and endowment of laboratories, financially supported by the Government, in which any graduate in medicine can avail himself of the opportunities thus afforded. It seems to me a very unsatisfactory state of things that funds for the furtherance of scientific research should be paid to men who undertake this important work

⁶Arnold, H. D.: *Boston Med. and Surg. Journ.*, 1913, pp. 168, 265.

only as a sort of stepping-stone to private practice, and have not the slightest intention of making it their ultimate aim and object. It is highly desirable that scientific research, upon which we have to depend chiefly for further progress in medicine, should be adequately endowed and supported by the State, which should provide suitable equipment and sufficient remuneration for the teachers, so as to render it worth their while to devote their lives to the work. In return for the money thus contributed by the State, the people, through medical practitioners, could be supplied with laboratory reports, analyses, etc. The laboratory would thus become a Government department, similar to the existing public health department.

Although, as I have indicated above, I think there is much to be said in favor of a nationalized system of laboratory work, I wish most strongly to emphasize the fact that I would not for one moment suggest that the *practice of medicine* should be placed upon a similar basis, and thus made nothing more nor less than a Government department. The establishment of such a department has even been suggested, with a system of rewards and promotions, similar to that which obtains in Germany, or in the British Army and Navy. It is obvious that, human nature being what it is, such a state of things would offer the strongest inducements to commercialism, which, in any form whatever, is diametrically opposed to the ethics and best traditions of our profession.

Behold us! the members of what has always been considered to be one of the most dignified and honorable professions, parading the highways and byways of this country, our chests expanding with pride, as they groan beneath the weight of the numerous medals with which our gaudy tunics are adorned, the insignia of tinpot decorations, doubtless secured partially through merit, partially through what can only be described as the most carefully planned advertising, and partially through the wire-pulling and intrigue of wily politicians, who, chameleon-like, have acquired the invaluable faculty of adapting themselves, and of changing their color with that of the Government in power for the time being. Are we willing that the social standing of our profession should be thus degraded?

In this connection there is also something to be said from the point of view of the Canadian ratepayer, who prides himself upon paying for what he gets, and for no more. Is it likely that he would be willing to consent to legislation which would involve the raising of a large amount of money by the Government for the maintenance of insurances and benefits, and which would, there-

fore, also involve a corresponding increase in the rates, while he is deprived of some of the privileges he now enjoys? Would he be willing to place himself under such a parental Government, which would rob him of these privileges, and thus in some ways render him a mere chattel? Imagine his being allowed the privilege of selecting a veterinary to attend his domestic animals, while at the same time he is not permitted to choose the doctor who shall attend his family and himself. I have no hesitation in saying that I am absolutely certain that this country would not tolerate such a state of things for one moment.

In this short summary of the present position of medical education the time at my disposal has only allowed of a brief reference to a few of the more important points in a very wide and far-reaching subject, but I have endeavored above all to emphasize the desirability of giving every student an opportunity to devote himself, during the final period of his medical studies, to clinical work generally and the observation of patients individually, from which alone he can acquire that practical knowledge of his profession which is so essential to his success in after life.

Before concluding this part of my address I should like to say a few words upon the significance of personality. Whilst it is, of course, absolutely essential that the physician should be thoroughly equipped for the duties of his profession, both from a theoretical and practical point of view, it is at the same time highly desirable that his training should not be simply and solely a scientific one. In a monograph recently published, Bickel⁷ gives his conception of the ideal physician. He says that medical knowledge and technical facility alone do not suffice to make a good physician, but that with these should be associated a harmonious character, knowledge and love of human nature, strength of will, loyalty, and sincerity both in regard to himself and others.

The student should be taught to look upon the patients coming under his observation as individuals, and not simply as members of a class suffering from a particular disease. He should study their individual idiosyncrasies, and cultivate that knowledge of human nature and tactful kindness which will enable them to undergo, with the least discomfort possible, under the circumstances, ordeals which must of necessity be extremely unpleasant to them. There is no profession in which greater strength of character and more strict conscientiousness are required, and the physician needs in a pre-eminent degree that elusive quality which has been described as tact. It follows that a physician should not be

⁷Bickel: "Wie studiert Man Medizin?" 1906.

simply a scientific man, but one with sensitive intuitions and a keen interest in humanity, and Fürst sums up the character of the ideal physician as follows:—"Only a good man can be a good physician."

An address delivered before an audience of this character would scarcely be complete without some reference to what has certainly been the most important event in the medical world during the past year, namely, the Seventeenth International Congress of Medicine in London, at which many of us were present. The large attendance of nearly eight thousand people, which included many scientists of world-wide distinction, coming from all parts of the world, is an indication of the interest taken in the Congress from an international point of view.

At a meeting of the Canadian section on the closing day of the Congress, Dr. J. T. Fotheringham moved a resolution of thanks and congratulation to the president, secretary and members of the Organizing Committee on the great success with which their efforts had been attended. This resolution was seconded by Dr. J. M. Elder, of Montreal. At the same meeting a resolution was moved by Dr. James Third, of Kingston, and seconded by Dr. Reeve, of Toronto, conveying the thanks of the Canadian section to Dr. W. H. B. Aikins. These gentlemen referred to the great services rendered by Dr. Aikins, who for the last eight years has acted as secretary of the Canadian National Committee, and during that time had been indefatigable in his exertions to secure for Canada a proper place in these international gatherings. In this connection I should like also to refer to Dr. Reeve, who was present at the last International Congress in London, held in 1881, as was also Dr. Aikins, and has ever since taken the greatest interest in the meetings of this important organization.

We all greatly appreciated the significance of the idea so gracefully expressed by Prince Arthur of Connaught, in his address of welcome to the members of the Congress, namely, that not England alone, but the British Empire as a whole, was giving this Congress, the representatives of the various overseas Dominions sharing the position of hosts to the other members of the Congress. I cannot sufficiently express my appreciation of the cordiality of our reception, and of the excellent arrangements which were made for the comfort and entertainment of ourselves and the ladies accompanying us, both in regard to the official arrangements and the social programme.

A very interesting and important function, especially from the point of view of the Canadian contingent, was the reception

given by our representative in England, Lord Strathcona, at the Botanical Gardens. It was the most largely attended function throughout the whole week of the Congress, invitations not being restricted to members of the Congress but also given to other Canadians who happened to be visiting London at the time.

It is a significant fact in the medical history of Canada that we now have a permanent Organizing Committee for the Eighteenth International Medical Congress, to be held in 1917. Of this Committee Dr. W. H. B. Aikins is chairman, and Dr. H. B. Anderson secretary.

In conclusion I should like to make a few suggestions as to the work of the Academy during the coming year. The Academy of Medicine was established with the object of promoting harmony and co-operation amongst the members of the profession in Toronto, and also to contribute to the diffusion of knowledge in regard to the work which is being done in this and other countries.

In regard to the various meetings it shall be our aim to provide programmes which will be of interest to the largest number of Fellows. The meetings of the special sections, such as pathology, pediatrics, and so on, will naturally be of the greatest use to those belonging to those sections, but I should very much like to see at least a partial return to the old order of things, in which greater interest, from a general point of view, was shown in pathology and the exhibition of clinical cases. I think it highly desirable that when cases are presented in the various sections in medicine and surgery, both the pathological and clinical reports should be included. At the same time the special pathological section of the Academy should, of course, still be maintained, and I would strongly urge the importance of having as much work done in this section as possible.

Finally, I should like to say that I assume the responsibilities of the presidency in the fullest confidence that I shall have the support and sympathy of every Fellow of the Academy and of every member of the Council, without which we cannot secure that degree of success and advancement which it is our privilege to attain.

Alopecia Areata — Dr. Whitfield, according to *Medical Press and Circular*, has met with considerable success in alopecia areata by correcting errors of astigmatism.

A FACE AFIRE

By A. C. E.

Early in the morning, for it lacked a few minutes of one o'clock, Claude Bernard, who had been spending the evening at the suburban home of a very estimable young lady, was hurriedly returning to his lodgings. For the past three or four months he had been paying marked attention to Miss Margery Chatterton.

His route lay through the subway, the specific condition for annexation of the suburb to the city proper a few years ago. The streets were well lighted; the subway, dimly.

Proceeding along the concrete walk against the south wall of stone, with rapid strides, unmindful of the dark shadows of the regularly placed centre abutments and the total absence of other pedestrians, he was whistling a lively tune, thus bolstering his spirits. The place was damp, lonely, depressed and depressing, not a night car in sight, nor even the rumble of an approaching train overhead.

He had just reached the corner of a driveway entering the passage at an acute angle, much used by pleasure-seekers returning from the suburban lakeside park, and situated about one-quarter of the distance through the tunnel when, like a flash of lightning from a clear sky, before his astonished vision, out into the passage way rolled a big white touring car. For an instant it hesitated, the big wheels just revolving. From the chauffeur's seat arose a thin diaphanous figure, turned toward him, raised a small white-gauntleted hand, and pointing past him in the direction from which he had come, commanded in a deep bass voice: "Go there no more!"

Then with a bound it sped on its way; and almost before the astounded and perturbed young man could recover his mental equipoise, it had disappeared out of the subway, speeding city-wards.

Claude Bernard had a dim recollection of a stone wall supporting his back; of a hazily-defined idea of retracing his steps and waiting on the brow of the suburban incline for the night car; of eventually stumbling along through the subway, furtively scanning the shadows of each stone abutment as he passed them by; of reaching the well-lighted street; and then of partially re-

gaining his equanimity as he paced rapidly to his lodgings in the boarding-house section of the west end.

Needless to say, his bed that morning was not one of roses; for all the remaining hours recalled vivid memories to his befuddled mind.

And now at ten o'clock a.m., Claude Bernard was sitting in the consulting-room of his friend and medical adviser, Dr. Geoffrey Lloyd, to whom he had just related this fantastical incident.

Dr. Lloyd knew Claude Bernard well, exceedingly well. They had been boys and chums together in a little town up-country. They had gone through the university together, had received their degree in arts at the same convocation; but while he had gone on to the study of medicine, Claude had chosen banking as his vocation, and now held an accountant's position in one of the wealthiest bank corporations in the city.

The doctor loved his friend and felt that here was a case to be handled with the utmost caution.

"Am I going crazy, Geoffrey? Or what is the matter with me? I can see you doubt my story," questioned Claude, as he jumped from his chair and began pacing the small consulting-room. "Give me something!"

"Sit down! Don't be foolish! There is nothing the matter with you—only a little unstrung in the nervous system. It will pass off in a day or so," reassuringly, and Dr. Lloyd reached for his graduate glass and measured out a sedative.

After the patient had taken the quieting draught, Dr. Lloyd resumed:

"Come now, tell me all," he said, composedly.

"What do you mean? Think there is any more to tell?" interrogated Claude.

"Of course there is; dreams are but the fulfilment of a wish," sagaciously uttered.

"I was right in reading doubt in your expression, then. Now, I tell you, Geoffrey, this actually happened. I never was wider awake at any time in my life. The car was there all right, and so was the figure, and more, I distinctly recognized *her*," and Claude's face took on a sorrowful expression and there was a quite perceptible tremor in the last words.

"Ah, Claude! I knew or felt as much," sympathetically. "Forgive me," he continued, feelingly; "but how long has Eleanor been dead now?"

"Three years. As you know she sickened and died of typhoid just a month before we were to have been married," and there was a far-off look in the respondent's eyes.

After a few moments of silence, the doctor began again:

"And this Miss Chatterton—the lovely Miss Chatterton, as she is called—when is that to be?" Geoffrey Lloyd was watching his friend narrowly.

"Eleanor does not wish it," mournfully replied the patient.

"Nonsense, man!" thundered Dr. Lloyd. "You're obsessed. I'll have to lay this ghost for you. You've been working at the bank too much. We'll investigate this white automobile episode and then you for Atlantic City or Virginia Beach. Come to, man! Let's think it out," and Geoffrey Lloyd wheeled around in his chair and brought his clenched hand down sharply on his desk, at the same time reaching with his left to a case of books on the wall above it.

Taking down a three-quarter Morocco binding, he began turning its pages hurriedly, but not readily finding what he wanted, turned back to the index; while Claude took out a cigarette case, and placing one on the desk for the doctor, struck a match, passed the light, and then helped himself.

"Here it is," exclaimed the doctor.

"Here what is?" returned Claude, petulantly. "I guess you're the one that's bewildering your balance this time."

"Psychoanalysis—interpretation of dreams—repression—the passion of grief for a departed friend—long fidelity—motives—unrepressed wishes—propensity to consult with adviser—anxiety—" and a whole host of incoherent words and phrases mumbled the doctor for several minutes, almost unconscious that any such person as Claude Bernard was in existence, let alone sitting there quietly smoking a cigarette in that very consulting-room.

Suddenly Dr. Lloyd turned, having closed the book with a slap:

"Here, Claude, take this pad and pencil and write out all your thoughts on this matter—I have to go out for an hour. Write them down, whatever they are and wherever they lead you. Keep strictly close to the line."

In a little over the hour the doctor returned.

"Ah, Claude! I see you have been busy," he said, as he surveyed the pile of manuscript lying face downwards on his desk—"and still going strong."

"Well," he continued, "that will do now. Let's search for a

clue," as he turned the sheets over and began reading them rapidly.

Claude Bernard waited and watched with feelings bordering on curiosity and contempt. He had entered into the spirit of thought-writing, which had calmed and soothed his excited psyche, for he could now sit up and think.

"Margery!" cried out Dr. Lloyd. "I have it!" as he read the notes and found "Margery Chatterton" running into and getting mixed up with "Margery Hamilton," Eleanor's sister. But he did not wait for Claude to reply. "Margery Hamilton is the spectre you saw last night and mistook for Eleanor. Depend upon it, Claude, my boy, Margery Hamilton is in love with you, herself, and has heard about your attentions to Margery Chatterton; and if I remember her rightly she is harum-scarum enough to pass a joke like this over on you—and pretty, she was as pretty as Eleanor, and very much like her."

Claude Bernard gaped. In an instant he recovered himself.

"It's preposterous, Doc—Geoffrey. She's three or four hundred miles from here, and she couldn't run an automobile anyway—and at that time of night or morning. It's absurd," gazing intently into the oval, smooth, light-complexioned face of the young medical man.

"Yes, she is here—right in this city now. I saw her when I was out," responded Dr. Lloyd as emotionally.

Claude Bernard blew a long, low, calculating whistle.

He had corresponded with Margery Hamilton at his old home town for a year after Eleanor's death, but had not seen or heard of her for at least a year and a half.

"When do you call again upon Miss Chatterton, Claude, may I ask?" eagerly questioned his friend.

"I go thrice a week—Tuesday, Friday and Sunday evenings. We're engaged."

"Congratulations—warmest congratulations, old man. And you *will* go on Friday—this is Wednesday."

"Assuredly, now. I think I can see through this muddle. I must have been watched. Anyone could easily slip around through the park and run into the subway by the time I reached it."

"Shall we give them a scare—there must be two—one secreted in the body of the car?" asked Dr. Lloyd. "See," he went on, reaching up to the window blind and drawing it and the inside green one, rendering the room completely dark, "that would scare most any one in the semi-darkness of the subway."

"Heavens, Geoffrey! How do you do that?" gasped the astonished Claude.

"Never mind. Friday night I'll scout around Miss Chatterton's neighborhood in my runabout, about the time you're leaving. It's altogether likely they know your habit; and then if I spot any suspicious looking car I'll go and wait at the brow of the incline. By the way do you remember ever having seen a car like this one before?" and Dr. Lloyd sprang the blinds and replaced the apparatus he held in his hand in his cabinet.

"I have," replied Claude, "and I have been trying to locate it, but can't seem to recall it altogether," reflectively.

One o'clock, Friday night.

"You're a little late, Claude," whispered Dr. Lloyd, as the lover passed the runabout alongside the curb near the entrance to the subway. "They must be nearly there. I saw them take down a side street towards the park as I motored past just as you were leaving the house. Step a little livelier," and the doctor who had extinguished his lights, waited a couple of minutes, then cranked up, jumped in, took a firm grip and started for the subway at top speed. He was just in time.

As he entered the subway he saw the white car appear from the driveway. The weird form had arisen. The hand had been pointed. The deep bass voice had spoken—"Go there no more!"—when a terrible scream rent the air. The white figure swayed and fell in a heap. Claude sprang for the car. The man with the bass voice, which Claude had overlooked before, scrambled from the body of the car, over the back of the front seat, into the chauffeur's place, pressed for high speed; got it; spurted.

Claude missed, but caught a rapid glimpse of Dr. Lloyd as he flew past in hot pursuit.

It was the face of a red devil driving the runabout at mile-a-minute speed. Fire darted from Dr. Lloyd's pupils. Bright red, semi-circular *tâches* blazed under each eye. Red light poured from each nostril. The mouth was a scarlet slit. On each side of the nose, a flash of light. The entire lower face was red with fire; the face, runabout, and all racing like Fury possessed.

Dr. Lloyd drew out alongside the big white touring car as they cleared the subway, prepared to give stern chase, but the unexpected happened.

The white car came to a standstill just beyond the brow of that incline.

Whether the driver had stopped on purpose or something had gone wrong with the car, Dr. Lloyd didn't trouble to ascertain.

"I'm afraid you've scared my sister to death with that awful face of yours, however you did it!" snapped the man from the car, as Dr. Lloyd, carried past with his speed, returned to the touring car.

"Well, you were trying to scare my friend, but it is not that bad I hope," as he sprang from his seat to give the young lady attention.

In a few minutes Claude came running up:

"Mr. Houghton," he demanded, as he recognized a young man whom he had frequently met at Miss Chatterton's, "what is the meaning of this?"

"It means I simply tried to scare you from Margery Chatterton and failed, that's all," sulkily.

"And the young lady in league with you?" he persisted eagerly.

"Is my sister."

By this time the sister was brought to rights by a restorative administered by Dr. Lloyd, when the couple motored away from the chuckling friends.

"What a devilish face that is of yours, Geoffrey, when trans-illuminated!" laughed Claude as they took it easily homewards. "Somewhat better than your psychanalysis and identification of Margery the other day! Eh! What?"

THE MEDICAL TREATMENT OF DUODENAL ULCER

BY CHARLES G. STOCKTON, M.D., BUFFALO.

Whether the peptic ulcer is located in the stomach or duodenum, Stockton, (*New York State Journal of Medicine*), says the medical treatment consists in absolute physiologic rest to the part involved. The principle is the same whether medical or surgical. The diseased area must be spared from incessant irritation by the acid, enzyme-bearing chyme, the motor disturbance and tonic contraction and pyloric spasm. There is an exception, however, in the instance of the resection of the ulcer-bearing area in the pyloric region of the stomach. The treatment is directed to controlling the patient and so managing his digestive tract to allow the ulcer to heal spontaneously. The patient should remain continuously in bed several weeks, as the upright position

permitting of bending or making movements throws undue tension upon the walls, and the ulcer thereby strained. He should be so managed that all involuntary motion of pylorus and duodenum is minimized, and to lessen the amount of gastric secretion, decrease acidity and enzyme activity of the gastric juice before it passes the pylorus.

The patient must be made comfortable in bed, as well as contented: soft and elastic mattress, sheets clean, freshened, light clothing. The room well ventilated, and the light not allowed to strike directly in the patient's face. A sponge bath or alcohol rub with massage should be given daily, avoiding manipulation of the abdomen. Mental calm is important, where possible treatment is better followed out in the hospital.

The second essential is physiologic rest to the duodenum. For this there must be a controlled or decreased gastric secretion. Therefore nourishment must not be taken in the usual manner. Exclude, if possible, spasm or excessive tonus and peristalsis. The patient should be confined to an unstimulating fluid or pultaceous diet. Milk, milk porridge, rice, gruel, sugar, raw egg yolks, uncooked butter, cream and oil, until 2,000 to 2,500 calories are taken daily. Clean the colon with bowel washes, assisted by magnesia. Irritation and an over tonic state of the pylorus should be relieved by large doses of bismuth. At times it is best to require a fast of twenty-four hours. Relief may follow the taking of purified vaseline or olive oil every two or four hours. For persistent tonicity at pylorus, a hypodermic injection of atropine in full doses, followed by fasting for a day or two and rectal alimentation. Adrenaline subcutaneously for spasm is sometimes most favorable—1 c.c. of 1-1,000 solution. Hot poultices and hot fomentations meet with partial success in a great majority of cases. In some the symptoms are relieved with ice and tends to decrease hemorrhage. To control gastric secretion and decrease gastric hyperacidity, the most successful antacid is light calcined magnesia, bismuth sub-carbonate and lime water. Vaseline and olive oil afford relief in cases of over-acidity. Animal broths and extracts should be excluded from the diet. Another method of relieving gastric secretion and to overcome pyloric spasm is the duodenal alimentation of Einhorn. This is a new and important means for the treatment of both gastric and duodenal ulcer. To relieve hemorrhage there should be complete bodily and mental rest, fasting two or three days, normal saline per rectum, probably with some calcium lactate in the water. But the most efficient is the sub-cutaneous injection of serum as devised by Clowes and Busch, now on the market as "Coagulose."

THERAPEUTIC NOTES

Puerperal Fever. — Ilkervitsch (*Zentral für Gyn.*) used intravenous injection of one per thousand of silver nitrate solution as introduced by Hume, of Baltimore, in a number of cases with extremely satisfactory results in eighty-three out of one hundred and thirty-eight cases of puerperal fever. Later experience has convinced him that distilled water alone answers equally well. In the last eighteen months Ilkervitsch has applied this measure in 142 cases and 42 patients out of 62 with pyemia and septicemia were cured. In the severest cases of septicemia improvement followed the infusion of distilled water. The report issues from the Moscow maternity.

Hemoptysis. — Müller (*Beiträge zur Klinik der Tuber.*) commends the treatment of hemoptysis with intravenous saline infusion. The blood becomes more fluid and as a consequence coagulates more readily. He reviews his experience in fifty cases during the last eighteen months and considers it more reliable than any other measure to date. The injections, which are entirely harmless and cause no trouble, consist of 5 c.c. of a 10 or 15 per cent. solution of salt. The injections should be given during the hemorrhage and after its arrest, a second, or a third during the day to ward off recurrence.

Boils. — L. E. Chapman (*J.A.M.A.*) says eight ounces of the following mixture will promptly cure boils in every case: Liq. potassii arsenitis, m. iii; Liq. ferri peptonati cum mangano, ʒi. This is one dose; take after meals. He has used this for seven years.

Tabes. — Joseph Collins (*Med. Rec.*) says if neosalvarsan is used instead of salvarsan the interval between the administration should be less. It is given one dose every third day for four doses, and then an interval of from six to eight weeks, for men the dose being 0.9 gm., for women, 0.45 gm. In many cases

during this time it is advisable to give mercury, possibly in large doses or cacodylate of soda. The chemical and microscopical findings in the cerebrospinal fluid determine whether we shall or shall not give mercury after the neosalvarsan.

Colles' Fractures. — A. O. Wilensky (*N.Y.M.J.*) immobilizes with a plaster of paris bandage, as it can be accurately applied, taking advantage of all the natural eminences and depressions. It can readily be converted into splints that fit the part by cutting through at the sides. On the day after it is applied, and every day thereafter, the wrist joint is carefully moved, the forearm muscles methodically massaged, and fingers moved. On the fifth day the cast is discarded, and a simple starch bandage is substituted for two days more, when all splint apparatus is discarded. At the end of ten days the muscles are almost as strong as in the sound limb. At the end of two weeks patients are back at their work. Patients never have any resultant stiffness. These conclusions are based on cases observed and treated in Mount Sinai Hospital, New York City.

Femoral Hernia. — G. S. Thompson (*The Lancet*) thus describes a new operation for femoral hernia: A nearly transverse incision is made over the saphenous opening, the canal defined, and the sac ligated. The connective tissues in the space are gathered outwards so as to form against the vein a cushion next to which the flange of a celluloid filigree, shaped so as to fill the triangular femoral hernia space, will rest, the flange being separated from the vein externally by the cushion of connective tissue. Three temporary catgut fixation stitches are inserted through the perforations at convenient spots, thereby fixing the filigree to Poupart's ligament above, Gimbernat's ligament internally and Cooper's ligament and the bone below. This completely obstructs the femoral canal and soon fibrous tissue grows through the perforations and the plate becomes covered and embedded in the same, firmly fixing the plate in situ. By this means the canal is permanently, thoroughly and satisfactorily closed without causing pressure on the parts. There is an impassable barrier constituted and the vessels cannot be interfered with or damaged.

Reviews

The Doctor in Court. By EDWIN VALENTINE MITCHELL, LL.B., of the Massachusetts Bar. New York: Rebman Company.

The physician who is called into court either as an ordinary witness or as an expert will not fail to appreciate a compact production which sets forth certain duties, legal obligations and general principles of law relating to the medical profession. The book contains much which will ably assist a physician in the witness box.

Pocket Cyclopedia of Medicine and Surgery. Gould and Pyle. Second edition. Revised, enlarged and edited by R. J. E. SCOTT, M.A., B.C.L., M.D., New York. Philadelphia: P. Blakiston's Son and Co.

It is remarkable the amount of valuable information contained in this little volume. The book is increased by 155 pages. The matter is well selected. There are many pocket books on the medical market, but none so amply filled as this one.

Keen's Surgery, Volume VI. The Volume with the newest Surgery. By eighty-one eminent surgeons. Edited by W. W. KEEN, M.D., LL.D., Hon. F.R.C.S. (Eng. and Edin.), Emeritus Professor of the Principles of Surgery and of Clinical Surgery, Jefferson Medical College, Philadelphia. Octavo of 1,177 pages, with 519 illustrations, 22 in colors. Philadelphia and London: W. B. Saunders Company, 1913. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto. Entire work, consisting of six volumes, per volume: Cloth, \$7.00 net; Half Morocco, \$8.00 net.

This volume contains about seventy chapters, beginning with one on Inflammation, by Prof. Adami, running the gamut of at least the more important subjects in surgery, and concludes with a chapter by Ochsner, on "The Surgical Organization of a Hospital." A glance at the list of authors is a sufficient guarantee of the excellence of the work. To single out one, or a dozen articles would seem to be making invidious distinctions. The letter press and illustrations are most excellent, *i.e.*, up to Saunders' usual standard.

A Clinical Manual of Mental Diseases. By FRANCIS X. DERCUM, M.D., Ph.D., Professor of Nervous and Mental Diseases, Jefferson Medical College, Philadelphia. Octavo of 425 pages. Philadelphia and London: W. B. Saunders Company, 1913. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto. Cloth, \$3.00 net.

This book is based on the course of lectures delivered annually by Dr. Dercum to medical students at Jefferson Medical College. The subject is presented from the clinical point of view and will appeal to medical students and general practitioners alike. Particular stress is laid upon the clinical pictures, prognosis and treatment.

A Code System for the Hospital Pathological Laboratory. Part I. Autopsy Work. Being a students' guide to the description of autopsy organs. By O. C. GRUNER, M.D. (Lond.). Pathologist to the Royal Victoria Hospital, Montreal. Price, 65c. Montreal: Miss Poole's Bookroom, McGill College Avenue.

This code has been in use in the Royal Victoria Hospital for about two years. The second part of the system was published in 1912. It is a student's guide to the description and investigation of organs at autopsy and is so arranged that the instructor's remarks may be added in the margins.

Obstetrics for Nurses. By JOSEPH B. DELEE, M.D., Professor of Obstetrics in the Northwestern University Medical School, Chicago. New (4th) Edition. 12 mo. of 508 pages, fully illustrated. Philadelphia and London: W. B. Saunders Company, 1913. Canadian Agents: The J. F. Hartz Co., Ltd., Toronto. Cloth, \$2.50 net.

It is essential that the obstetric nurse should be well-trained as it not infrequently happens she is called upon to do more at the bedside than mere routine. This book succinctly conveys the theoretical education. This edition is brought up-to-date and some new illustrations added. There is much in its pages which will well repay medical students to read, mark and inwardly digest.

Dominion Medical Monthly

And Ontario Medical Journal

EDITED BY

Medicine: Graham Chambers, R. J. Dwyer, Goldwin Howland, Geo. W. Ross, Wm. D. Young.

Surgery: Walter McKeown, Herbert A. Bruce, W. J. O. Malloch, Wallace A. Scott, George Ewart Wilson.

Obstetrics:
Arthur C. Hendrick.

Pathology and Public Health: John A. Amyot, Chas. J. C. O. Hastings, O. R. Mabee, Geo. Nasmyth.

Physiologic Therapeutics:

J. Harvey Todd.

Psychiatry: Ernest Jones, W. C. Herriman.

Ophthalmology: D. N. MacLennan, W. H. Lowry.

Rhinology, Laryngology and Otolaryngology: Geoffrey Boyd, Gilbert Royce.

Gynecology: F. W. Marlow, W. B. Hendry.

Genito-Urinary Surgery: T. B. Richardson, W. Warner Jones.

Anesthetics: Samuel Johnston.

GEORGE ELLIOTT, MANAGING EDITOR.

Published on the 20th of each month for the succeeding month. Address all Communications and make all Cheques, Post Office Orders and Postal Notes payable to the Publisher, GEORGE ELLIOTT, 219 Spadina Road, Toronto, Canada.

VOL. XLI.

TORONTO, DECEMBER, 1913.

No. 6

COMMENT FROM MONTH TO MONTH

The teaching of sex hygiene to school children is not to be exalted into a special entity as a course of teaching or study, but if it be essential, it should form just a part of a regular course on personal hygiene and have no more emphasis laid upon it than the systematic washing of feet, cleaning of teeth, bathing, etc. The mind of the child should not be brought to dwell upon the sexual organs and functions to the exclusion of other organs and their functions.

That physiology in any shape or form should be taught to children or even to adults is to be deprecated. Personal hygiene is altogether another matter.

In the way of studies and instruction the school child has now more than it can properly assimilate. There is not enough time given to reflection and digestion. It is even so with the adult. Books are generally read more for pleasure than for profit. Reflection upon what has been read is a negligible factor. There is scarcely any analysis of the subject-matter.

Personal hygiene in the child is something which should be attended to in the home. If it is anybody's duty to teach sexual matters it is the parents who should gradually inculcate this knowledge.

There is so much now written upon sexual hygiene that the time has arrived for medical societies to make authoritative pronouncements upon the subject.

With an intimate connection with medical societies for upwards of twenty years, the writer recalls the paucity of papers, reports of cases and discussions upon sexual matters; and even in the teaching of anatomy and physiology to medical students not much particular stress has ever been laid upon purely sexual subjects.

Is this to mean that the medical profession as a body consider that an animal instinct will take care of itself? Is there a danger of man becoming to know too much about himself? For certainly it is dangerous to the young and growing mind to have that mind regularly and systematically fastened upon all matters sexual.

There are many human moth balls in this world whose mission, in their own minds, is to disinfect the balance of mankind. Voluntary societies of all sorts and conditions spring up like mushrooms all over the land; and it may become necessary in future generations to regulate and restrict the formation of societies by governmental action and supervision.

Haphazard methods of attempting to correct social evils and sporadic flights into Utopian realms smack all too much of the visionary.

What every country needs is a Department of Health, so that all matters appertaining to the health welfare of the people may be systematically prosecuted and effectively conducted.

THE CANADIAN MEDICAL ASSOCIATION MEETING

It will be of interest to the profession, generally, to know that the next meeting of the Association is to be held in St. John, N.B.

It will extend over four days, the 7th, 8th, 9th and 10th of July next. St. John has excellent hotel accommodation and ideal weather in the summer time. The thermometer is rarely above 70°, and the nights are refreshingly cool and invigorating. Preparations for the meeting are already well under consideration. The profession of the city is working as a unit to make it one of the most successful ever held by this association.

Medical men throughout Canada and elsewhere contemplating a holiday in which pleasure and profit may be combined cannot do better than arrange to go to St. John next July.

Editorial Notes

AIR POLLUTION

More attention should be given to preventing air pollution by smoke, dust, and other impurities. Health authorities have been lavish in preventing pollution of drinking waters and foods, though these are moderately consumed compared with the air breathed.

Heretofore the whole science of ventilation has been based upon a fallacy. It is now very well known that carbon dioxide gas is only harmful when present in proportion approaching that in expired air.

All air-borne diseases are now recognized as transmitted by solid particles in suspension in the air, not by the means of a poisonous gas. It is evidently useless, therefore, to measure the proportion of CO_2 in the air in a building to determine the fitness of the air for breathing. It is upon the absence of dust the real source of danger, the statements should be based as to the real purity of the air.

There is another point to be considered. When, for example, a person breathes in air laden with germs, such as those of consumption, whether he contracts the disease depends upon two factors: (a) the dose, and perhaps the virulence of the disease-carrying microbe which he receives; and (b) his own resisting power to infection.

While there are now several systems of ventilation which attempt to filter air entering a building, there is nothing to measure the purifying effects of such methods. If the screens or filters collect a good deposit of dirt, that may be satisfactory. But there are no ordinary means of distinguishing between harmless dust and dust carrying disease germs, outside of bacteriology.

Since 1911 efforts have been made in England to standardize methods of measuring atmospheric pollution by suspended matter. The objects in view were: (a) to measure quantitatively the amount of matter deposited from the air at any place during a fixed period; (b) to measure the amount of matter held in suspension in the air at any time and place; and (c) to find the nature and composition of deposited and suspended matter.

The various methods are the filtration method, the method adopted as the standard, Aitken's dust counter, the method of Professor Cohen, of Leeds, the glass plate method, filter paper.

optical, one similar to Dr. Fritzsche's for measuring smoke, and the Peter Fyfe method.

The standard form of apparatus decided on is a circular gauge vessel of enamelled cast-iron, the enamel being an insoluble porcelain. The vessel rests in a circular ring supported on four legs, with a shelf for holding bottles to collect water and deposits. A cage of wire surrounds the top to prevent birds from settling on the edge of the gauge.

The monthly deposits at four different stations, three being in London, and one twelve miles out, were compared and showed, deposits for the year, in tons per square mile of 500. 420 and 650, in the urban stations, and 195 in the rural. The prevention of air pollution is, therefore, a vital question.

DOMINION MEDICAL COUNCIL EXAMINATIONS

The results of the first examination under the new Canadian Medical Act are announced by Dr. R. W. Powell, registrar. Seventy-one candidates presented themselves at the examination. Forty-four were successful, eight were referred back to the council, having failed in not more than two subjects, and nineteen were rejected. Following is a list of the successful candidates: L. A. Aubin, Rawdon, Que.; I. F. Belanger, Quebec, Que.; I. A. Bergeron, St. Antoine de Tilly, Que.; C. R. Bourne, Montreal; C. E. Brown, London, Ont.; I. Cumming, Ottawa, Ont.; A. P. Davies, Hull, Que.; A. S. Duncan, London, Ont.; J. B. Gallagher, Bath, N.B.; J. F. Grant, Montreal; E. H. Gray, Montreal; W. J. Hepburn, Montreal; L. G. Houle, Bras d'Apic, Que.; W. G. Hutton, J. J. Irvén, J. A. H. Joyal, R. F. Kelso, Montreal; J. H. G. Lacasse, St. Genevieve de Pierrefonds, Que.; J. L. Lamy, St. Flore, Que.; A. Leger, Montreal; A. F. Macaulay, London, Ont.; F. H. Mackay, Montreal; I. F. MacKnight, Tamworth, Ont.; L. W. MacNutt, Ottawa, Ont.; A. A. Martin, Pierce, Neb.; A. J. McCalla, St. Catharines, Ont.; W. G. Morris, Vancouver, B.C.; R. L. Morrison, Barrie, Ont.; P. Nase, Verdun, Que.; J. G. Phillips, Labelle, Que.; W. S. Pickup, Fort William, Ont.; J. L. Poirien, Cragmont, Ont.; L. K. Peyntz, Tavistock, Ont.; A. L. Raymond, Williamstown, Ont.; A. Stewart, Ottawa, Ont.; J. W. Sutherland, F. S. Swaine, Montreal; A. T. Turner, Bowden, Alta.; E. J. O. Wolcott, Montreal; L. W. Walkey, Hanover, Ont.; J. T. Wall, Kansas City, Mo.; W. G. Wallace, Metcalfe, Ont.; H. C. Workman, Kingston, Ont.

ARMY DOCTORS AND TYPHOID

(Int. Med Congress.)

An important discussion on anti-typhoid inoculation occupied the attention of the Naval and Military Section of the Congress at the Royal Military College, Millbank, and some important contributions to the subject were made, particularly in regard to the inoculation against typhoid of British soldiers in India. Surgeon-General Sir Launelotte Gubbins presided.

Colonel Sir William Leishman (Royal Army Medical Corps), Professor of Pathology, Royal Army Medical College, said that since he had the honor, in 1907, of acting as reporter on this subject at the International Congress of Hygiene at Berlin, anti-typhoid inoculation had come to occupy a very important place in military medicine. At that time it was very far from being generally accepted as a practical measure, although its protective value was recognized by most bacteriologists. Now he thought it might be said to be generally regarded as one of the most powerful weapons in the fight against typhoid fever.

In the Army they had now accumulated a very considerable body of experience in the practical use of the vaccine. They were the first to adopt the method as a preventive measure on a large scale, and, although its general acceptance had been a slow process, and it still remained on a purely voluntary basis, it was now widely taken advantage of by the soldiers, and had few, if any, strong opponents in either the combatant or the medical branches of the Army. The Army Council had given every support to their endeavors to secure as many volunteers as possible.

On the whole, he regarded the average duration of the protection conferred by their system as two years, and he thought that after this time had elapsed the individual, if still exposed to the danger of infection, should be reinoculated.

With the Army in India in 1890 there were 1,253 cases of typhoid and 332 deaths. Anti-typhoid inoculation was reintroduced in India as a voluntary measure in 1905; but it was not until the year 1909 that the number of men inoculated became sufficiently large to influence the general statistics. From that year there had been a steady and very remarkable decline, the figures for each successive year constituting a fresh low record until in 1912 they found that there had been only 118 cases of typhoid fever in the whole of

the British Army in India—a gratifying contrast to the large figures recorded in the past.

Those of them who had been responsible for inoculation had always owned in the fullest manner that vaccine had not been the sole factor in this remarkable change. Improvements in general sanitation, improved methods of diagnosis, the detection and isolation of “carriers,” had undoubtedly all played a part; but his strong personal conviction, shared, he was glad to know, by many of his brother officers, was that the reduction was in the main due to the extended employment of anti-typhoid vaccine.

THE PRESENT STATUS OF ABDERHALDEN'S SERO-DIAGNOSIS

In 1912 Abderhalden described a method for the sero-diagnosis of pregnancy which has been discussed in these columns. Having found that if foreign protein is injected into the blood or introduced parenterally, ferments for the destruction of this substance are produced, he next showed that in the blood of a pregnant animal there circulates a proteolytic ferment which causes a breaking down or cleavage of placental proteins and furthermore that there is in the blood of pregnant women proteolytic ferment or ferments for human placental tissue.

Two methods are used to show the presence of these ferments, the method of dialyzation and the optic method. The first method is carried out as follows: A membrane is used which allows peptone to pass but retains unsplit protein. On one side of the membrane is placed 1 gm. of human placental tissue, which has been carefully washed and boiled in five times its volume of water repeatedly until the water no longer gives the biuret or ninhydrin reaction, thus showing that no peptone is present, and to this are added from 1.5 to 3 c.c. of the serum to be tested. The serum is obtained under strict aseptic precautions and should be secured absolutely pure without any trace of products of hemolysis. The membrane is then placed in a small vessel containing from 15 to 20 c.c. of distilled water, and this is incubated for from sixteen to twenty-four hours. The outer fluid is then tested for the presence of peptone. If any is present, it means that the placental protein has been split and we have a positive result. Abderhalden recommends the ninhydrin

test as more exact and as permitting finer differentiation in colors than the biuret test.

When the optic method is used a mixture of 1 c.c. of a 10 per cent. solution of placental tissue in physiologic salt solution and of 2 c.c. of serum is placed in a small polarization tube and the initial rotation is read in the polariscope. Then the tube is placed in an incubator and the rotation determined at various intervals up to thirty-six hours. The maximum change with non-pregnant serum never exceeds 0.03 degree, while pregnant serum gives a change in rotation from 0.05 to 0.2 degree.

The observation by Abderhalden that the serum of pregnant women splits up human placental protein has been confirmed by numerous observers in what appears to be more than two thousand cases.

Most of the authors cited have obtained positive results in practically all cases of pregnancy. On the other hand, less favorable results are reported by Engelhorn, Behne, and by Williams and Pearce, who assert that they have also obtained positive results in other conditions than pregnancy. They conclude therefore that "the test cannot be accepted as an accurate clinical method until it has been more thoroughly investigated and the possible sources of error corrected." It is interesting to note that Schlimpert and Hendry, who tested in all 316 cases, found at least eight or ten different errors in their earlier work which interfered with accuracy. They, as well as many others, including Abderhalden himself, emphasize the great importance of an exact technic. After numerous trials Schlimpert and Hendry obtained positive results in all of their last seventy-nine cases of pregnancy.

Lindig and later King have prepared dried extracts of placenta in sealed tubes which they believe are an improvement on Abderhalden's method of preparing and keeping the placental tissue; but Abderhalden holds that Lindig's preparations of dried placenta are untrustworthy and that all his powders after a few months will give a positive ninhydrin test.

We must conclude then that so far as pregnancy is concerned we have here a method of diagnosis of practical value and wide applicability. The results at hand show that the ferment is present in the blood from the sixth week after the last menstruation until the end of the third week post partum. Experiments on animals have shown that the reaction may be obtained within twenty-four hours after implantation of an ovum. The ferment is present also in case of extra-uterine pregnancy.

This method of diagnosis has an even wider application. Besides hypersecretion and hyposcretion of ductless and other glands we may conceive also of a secretion of unfinished or morbid substances from the glands, which may act as foreign materials against which ferments are produced which split them up. In dementia precox Fauser says that there is a ferment which breaks up substances from the genital gland. The genital glands of old men and women as well as those of patients with dementia precox serve as test objects, but there is no reaction with ovarian tissue and serum from male patients or with testicular tissue and serum from female patients. In a few instances thyroid tissue is split up. More recently Wegener has reported the results of a study of two hundred cases of different nervous diseases. In dementia precox in women he found that the serum would split up ovarian and tube tissue but not testicular tissue. The reverse was true for men. In some instances lymph-node substance was also affected. In maniacal depressive insanity proteolytic ferments could not be demonstrated in the serum, thus indicating that the test may serve as an aid in differential diagnosis. In epilepsy Wegener found that the serum would cause a cleavage of brain substance only in those cases in which dementia was present. In all syphilitic and parasyphilitic disorders he found that the serum caused cleavage of brain substance but not that of other organs. In a case of neuritis he found that the blood-serum reacted with muscle substance but not with other organs.

Lampe and Papozolu tested the serum of thirty normal persons with various organs and obtained no evidences of splitting of proteins.

Frank and Rosenthal attempted to determine what relationship, if any, existed between these ferments and immune bodies. They found that the latter are present when the former are absent, and hence no relationship could be traced.

Munzer suggests that the cerebrospinal fluid should be examined for foreign elements, as brain substance in dementia precox and general paralysis.

The possibilities indicated seem large. Almost daily new observations are recorded and there is good reason to believe that real additions to our knowledge of many diseases will result from the use of Abderhalden's method.—*J. A. M. A.*

News Items

Dr. Goldwin W. Howland, Toronto, will hereafter specialize in nervous diseases.

Dr. J. N. Roy, Montreal, has left for an extended trip to Brazil, Chili, Peru and Argentine.

Dr. Frederick W. Marlow, F.R.C.S., has been appointed Associate Professor in Gynecology in the Medical Faculty of Toronto University.

Ontario cities in the past fiscal year show 22,929 marriages and 15,917 births, while rural municipalities show 10,910 marriages and 32,028 births.

In 1911 Canada had 3,238 blind, 4,584 deaf and dumb, 14,702 insane, 5,387 idiotic, making a total of 27,911 defectives. New Brunswick is the only province which does not exhibit an increase.

One child out of every ten born in Ontario dies before reaching the age of five years. The total number of deaths under five years last year was 8,230, of which 6,494 were within one year of birth.

Calgary Medical Society officers for the year are: President, Dr. T. J. Costello; Vice-President, Dr. G. R. Johnson; Secretary, Dr. Roach; Executive Committee, Drs. Madden, McEachren and H. Johnson.

Alberta Medical Association elected these officers: President, Dr. G. A. Kennedy (since deceased); First Vice-President, Dr. E. C. Smith; Second Vice-President, Dr. G. Parsons; Third Vice-President, Dr. Stevenson; Fourth Vice-President, Dr. Archer; Secretary-Treasurer, Dr. A. McNally, Lethbridge.

Dr. Colwell, of the American Medical Association, inspected the Medical Department of the Western University, London, Ontario, on the 28th of October, in connection with the Carnegie Endowment. It is understood he was very favorably impressed with the improvements, as well as with those also at Victoria and St. Joseph's Hospital. He also inspected the Public Health Institute.

Sir Rickman Godlee, Baronet, President of the Royal College of Surgeons, England, had the degree of doctor of laws conferred on him at a special convocation of the University of Toronto on the 5th of November. The distinguished recipient was introduced by Professor I. H. Cameron. Sir Rickman gave an address to the Academy of Medicine the evening of the 4th on foreign bodies in the air passages, was tendered several private luncheons and dinners while in Toronto, and was a guest, the evening of the 5th, of the Æsculapian Club, at which the Hon. W. J. Hanna, Provincial Secretary, delivered a humorous, interesting and forcible address on the work Ontario was prosecuting in connection with Prison Reform.

The Stomach and Oesophagus. A radiographic study. By ALFRED E. BARCLAY, M.A., M.D., B.C. (Cantab.), M.R.C.S., L.R.C.P., Medical Officer to the X-ray and electrical departments of the Manchester Royal Infirmary, &c., &c. Price, \$2.25. Toronto: The Macmillan Company of Canada, Limited.

The great amount of excellent work done with the X-rays upon the abdominal organs in the past few years, stamps this book of the utmost value to the physician and surgeon. It was Sir William Osler and Sir Clifford Allbutt especially who urged the publication of what was originally a prize thesis in book form. It reforms our knowledge as given us by the anatomist of the position of the stomach and other abdominal organs. It certainly establishes the X-ray as a valuable factor in diagnosis. The writer, however, in our judgment, should have incorporated some pictures, purposely left out, of the abdominal organs, particularly the stomach in the position ordinarily used by the clinician in arriving at a diagnosis. As the supply is a limited one, orders for the book should be early placed with the Macmillan Company, St. Martin's House, Bond Street, Toronto.



Are you particular as to the condition of the iron in your Bland preparations?

Frosst's Perfected Bland Capsules present True Ferrous Carbonate.

Each 10 grain Capsule contains, approximately, 1 grain of Iron.

Charles E. Frosst & Co., Montreal.

Publisher's Department

CANADIAN NEWSPAPERS ARE INCREASING; OVER 100 NEW PAPERS STARTED IN 1912.—We have just received from the publishers, A. McKim, Limited, Montreal and Toronto, a copy of the 1913 edition of their Canadian Newspaper Directory. This work shows that, within the last year, over one hundred new papers have started to publish in the Dominion. In fact, so quickly is our Canadian newspaper field spreading out that A. McKim, Limited, have decided that it will be necessary in future to publish the Canadian Newspaper Directory annually instead of biennially as before. This Canadian Newspaper Directory gives full particulars of practically every publication in Canada, and is intended as a guide to advertisers, in selecting papers best suited to their requirements.

The work before us is most comprehensive, and gives the population of every newspaper town and the circulation of practically every paper in the Dominion. In all, it describes 1,688 publications issued in Canada and Newfoundland. Of these, 152 are daily, 1,281 weekly or semi-weekly, 232 monthly, and 23 published less frequently.

This issue also contains a list of the principal British publications, which will be of much value to the many Canadian firms now advertising in the Old Country.

The firm of A. McKim, Limited, who are easily the leaders in the Advertising Agency business in Canada, are to be congratulated upon the splendid service rendered, both to publisher and advertiser, through this very complete Directory. The price of the work, delivered anywhere, is \$2.00 per copy.

THE TREATMENT OF SYPHILIS.—The routine treatment of syphilis has long been based upon mercury and potassium iodide. Careful study, however, has shown that the combination of iodine with the alkaline salt, potassium, is not only unnecessary but, in all but the rarest instances, extremely harmful. Through Burnham's Soluble Iodine we are able to administer iodine in readily soluble form and secure all its recognized benefits with much greater despatch and uniformity than with the potassium salt—to say nothing of the freedom from destructive effects on normal tissues. The active iodine introduced in this way exhibits its full physiological activity without disturbing organic function.



Motor and Travelling Coats Dusters and Rugs

Not factory-made garments, but cut and tailored by experts in the West-end of London

MOTOR COATS

Silk Paramattas, Gabardines, Homespun Tweeds and Cashmere cloths. Single and double-breasted styles with military collars and straps on cuffs. Greys, tans, fawns, drabs, greens and khaki colors. - **\$8.50 to \$30.**

MOTOR DUSTERS

Cotton, silk, linen, mohair and alpaca in loose fitting styles with plain or belted backs and wind shields in cuffs. **\$2 to \$15.**

MOTOR RUGS

Light and medium weights in broadcloths and homespuns in plaids and tartans. - **\$3 to \$10.**

**PANAMAS, BANGKOKS, SAILORS AND
SOFT BRAID STRAWS. - \$2 TO \$50**

Motor Caps and Gauntlets; Canes and Umbrellas

Fairweathers Limited

84-86 Yonge St., Toronto

MONTREAL

WINNIPEG

or causing any change in the general metabolism of the patient. Of great importance, moreover, is the fact that the use of Burnham's Soluble Iodine allows gradual but progressive increase of definite dosage to the desirable effect.

To sum up the situation, it can be said without the slightest danger of contradiction that there are no local or general undesirable symptoms from the use of Burnham's Soluble Iodine, such as become manifest upon administration of large or continued doses of potassium iodide.

In cases where prolonged use of iodine is necessary the gastric irritation from potassium iodide always becomes so marked and the development of symptoms of iodism is so certain that it is rare that the drug does not have to be withdrawn sooner or later. The employment of Burnham's Soluble Iodine in such cases, however, causes no irritation to gastric or kidney function—nor does "iodism" or anemia result. Hence the widespread recognition of the marked advantages of this serviceable preparation by many of the country's most successful practitioners is not to be wondered at.

Burnham's Soluble Iodine is rapidly becoming the preferred form of iodine in syphilis. It attacks the stronghold of the spirochetæ, releasing them from their encapsulated colonies within the tissues. It is of great significance that in a number of cases of suspected syphilis in which the Wassermann test was negative, the use of Burnham's Soluble Iodine, for a week or two was followed by positive reactions. This leaves little doubt that the latent organism was liberated from the tissues and thrown into the blood stream where it could be detected by the Wassermann test. The great importance, therefore, of administering Burnham's Soluble Iodine as a routine measure before the use of remedies like salvarsan cannot be overestimated.

For further data on these matters address: Burnham Soluble Iodine Co., Auburndale, Mass.

AN INNOVATION IN HOTEL LIFE—A KINDERGARTEN DE LUXE—New York, Nov. 8.—A kindergarten de luxe has been provided for the children guests at the Vanderbilt Hotel and has been thrown open for inspection and use. Manager Walton H. Marshall explained that his aim in providing the institution was to help make hotel life in New York as attractive as possible for the children whose parents prefer it to housekeeping. The idea

Your Family Doctor

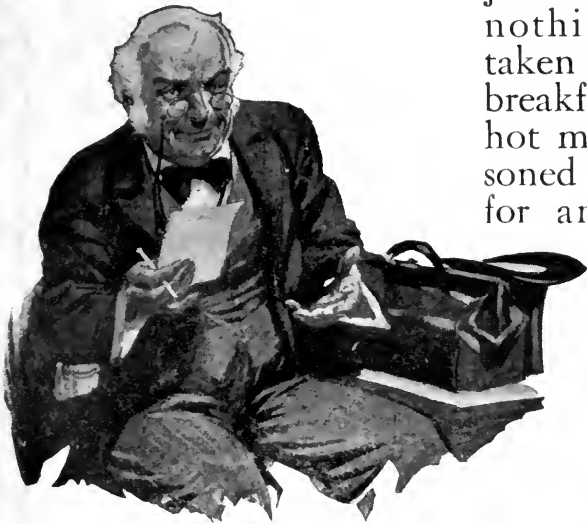
does not know as much about your stomach as you do. You have lived with it longer than he has. You know your digestive limitations. You know what "agrees" with you and what gives you distress.

It is well to get your doctor's advice, however, and if he is a wise counsellor he will tell you that the practise of eating a well-cooked cereal every morning for breakfast will not only strengthen your digestion, but keep the bowels healthy and active. The best cereal for this purpose is

Shredded Wheat Biscuit

because it is the whole wheat, steam-cooked, shredded and baked in the cleanest, finest food factory in the world. It is not "treated," flavored or com-

pounded with anything—just the pure, whole wheat, nothing added, nothing taken away. Delicious for breakfast when eaten with hot milk or cream and seasoned to suit the taste or for any meal with sliced bananas, stewed prunes, baked apples, preserved peaches or other preserved or fresh fruits.



**The Only Cereal Food
Made in Biscuit Form**

Made only by

THE CANADIAN SHREDDED WHEAT CO., LTD. NIAGARA FALLS ONT.

Toronto Office: 49 Wellington St. East.

is that of Mrs. Edgar Lacy Speer, and the artist who has carried out the proposition is Leo Helmholtz Junker.

Several youngsters whose parents are well known in society have been born at the Vanderbilt, and others live there, while naturally children come with their parents from everywhere. On the first floor, which, if there weren't elevators, you might think was the fourth, a big room has been turned into a playroom, a sort of realization of a Mother Goose tale, the artist having been charged to give free rein to his ideas of decoration appropriate thereto.

On the walls are painted scenes from Mother Goose Tales, and in an alcove is The House That Jack Built, which is just like a real house, and you can go in it and sit, if you are small enough, and look through the windows, and play you are the lady of the house and receive callers. The furniture of the playroom is all diminutive, the chairs being small enough for a child who is beginning to walk to occupy. The ordinary chairs and the arm chairs, together with a long, low table and the settees, are all in white with blue decorations, and the carpet on the floor is of blue. One row of shelves contains books with all sorts of fairy tales in them, and another is filled with dishes of the size that little folks like. Besides, there are all sorts of toys. In the pictures on the walls are none depicting goblins, giants and wicked fairies. The woolly lamb is barred from the room, as is everything else insanitary.

ACUTE PROSTATITIS. SANMETTO.—In the treatment of acute prostatitis salicylic acid internally in five-grain doses, and Sanmetto in teaspoonful doses tends to diminish the source of infection, reduce the existing inflammation and encourage resolution. The Sanmetto being a mild, soothing resolvent diuretic also tends to allay the suffering of patient. If the urine is acid citrate of potassium in ten-grain doses will aid in relieving irritation and tenesmus. As further measures for reducing inflammation, light diet, absolute rest in bed, free movement of the bowels and local application of heat by means of sitz baths, or hot water bag, should be enjoined. If the Sanmetto is kept up urinary retention is not likely to supervene, unless there is a previously hypertrophied prostate; in that case the bladder should be emptied by a soft catheter at intervals, still keeping up the use of Sanmetto. The prostate should not be massaged during the inflammatory state, but during the period of resolution massage will aid the process.

The Remarkable Body-building Power of **BOVRIL**

In the experiments upon human subjects conducted under the direct control of one of the foremost physiologists of the day, and reported to the British Medical Association, Bovril was proved to possess the remarkable body-building power of from

10 to 20 times the amount taken

Bovril is the concentrated goodness of the best of beef. It is a wonderfully warming winter beverage; it builds up the weak constitution and strengthens the strong one; it guards against the grip; it checks colds and chills; it is cook's right hand in the kitchen; it is nurse's first aid in the sick room.

Buy a Bottle To-day

In the diagram the long block represents the body-building power derived from the amount of Bovril represented by the small block.

Dr. Deimel Underwear (LINEN-MESH)

FROM any point you choose to consider the subject, nothing WORSE was ever invented for a skin covering than wool in the form man gets it—non-absorbent—prickly—itchy—non-ventilating and shrinkable.

Can you imagine anything more uncomfortable to put next to the body? Yet a great many people wear it simply because they don't give the matter of underclothing much thought. What they do worry about are the Colds, Catarrh, Rheumatism, Bronchitis, etc., to which the wool wearing makes them subject.

If they thought about their underwear they would cease thinking about their health, because they would wear The Dr. Deimel Underclothing, which keeps the body dry, warm, comfortable and healthy.

Send for booklet and free sample of fabrics.

DEIMEL LINEN-MESH COMPANY

416 St. Catherine St. West.

MONTREAL, Can.

BRANCHES:

New York Washington, D. C. San Francisco Brooklyn Detroit London, Eng.

We also sell the Dr. Deimel Linen-Mesh Supporters.

THE SAFE BICHLORIDE TABLET.—Among all classes of patients, and even among members of the medical profession, each year death claims its toll from accidental or indiscriminate use of bichloride of mercury tablets.

The means to avert error are largely in the hands of those who prescribe or dispense bichloride tablets, and the most reasonable assurance of safety lies in recommending tablets that minimize the danger to the user and are surrounded by the most reasonable safeguards.

“Diamond Antiseptics,” the trade name for the bichloride tablets manufactured by Eli Lilly & Co., meet the requirements of the physician for tablets that are highly efficient and safe for him to use in his practice, and at the same time afford his patients the greatest possible protection.

These tablets are hand-molded, rough to the touch and disintegrate rapidly and wholly. They are of diamond shape, and are distinctly marked “Poison.” In addition, they are packed in conspicuously-labeled, diamond-shaped bottles with serrated edges, a warning manifested to the most careless, even in the dark. The safeguards thrown around these tablets are an anticipation of legal requirements for public safety, and are worthy the physician’s insistence on the Lilly brand “Diamond Antiseptics” in ordering or prescribing bichloride of mercury tablets.—*Mary. Med. Jour.*

ANNOUNCEMENT

While no alteration has been made in the personnel of the Directorate of Woods-Norris, Limited, the firm name on and after November fifth will be changed from the above to Norris-Patterson Limited, Advertising Agency, Mail Building, Toronto.

R
11
C32
v.41

The Canada lancet and
practitioner

**Biological
& Medical
Serials**

PLEASE DO NOT REMOVE
CARDS OR SLIPS FROM THIS POCKET

UNIVERSITY OF TORONTO LIBRARY

STORAGE

